

One Arizona Center Phoenix, AZ 85004-2202 602.382.6000 P 602.382.6070 F swlaw.com

LAS VEGAS

28DP

PHOENIX

SALT LAKE CITY

TUCSON

#### RECEIVED

2007 OCT 30 P 4: 41

AZ CORP COMMISSION DOCKET CONTROL

Marcie A. Shuman 602.382.6520 mshuman@swlaw.com

October 30, 2007

Arizona Corporation Commission DOCKETED

OCT **3 0** 2007

DOCKETED BY

Blessing N. Chukwu **Executive Consultant III** ARIZONA CORPORATION COMMISSION 1200 West Washington Phoenix, Arizona 85007

Re:

Baca Float Water Company's Application for Extension of its Certificate of Convenience and Necessity for Sewer Service (Docket No. WS-01678A-07-0459); Response to Insufficiency Letter

#### Dear Blessing:

Baca Float Water Company ("Company") hereby responds to the deficiencies outlined in your letter dated August 31, 2007. The numbered items below correspond to the numbered items in your letter.

- Enclosed as Exhibit 1 is a copy of the Company's 2006 annual report for its sewer division as submitted to the Commission. As originally prepared, the 2006 report did not include sewer plant descriptions, sewer flow data and related information. This information, current as of 2007, is attached as Exhibit 2.
- In response to your request for sewer plant descriptions and sewer data flow, the Company has completed pages 10-13 of the annual report form (wastewater company plant description, wastewater flows, statistical information, etc.) with data that is current as of 2007. See the attached Exhibit 2. In the past, the Company only collected monthly sewer flow readings. During a routine inspection by the Arizona Department of Environmental Quality ("ADEQ") last month, ADEQ requested that the Company start collecting daily and monthly data on sewer flow. As a result, the Company just started to collect daily data on sewer flow.
- Enclosed as Exhibit 3 is a copy of the most recent Compliance Status Report for the Company from ADEQ.
- Enclosed as Exhibit 4 are (i) a spreadsheet which sets forth the estimated cost of \$722.525 for the planned wastewater treatment plant and influent lift station that will be



Blessing N. Chukwu Executive Consultant III October 30, 2007 Page 2

constructed to serve the extension area; and (ii) a spreadsheet which sets forth the estimated cost of \$320,500 for the on-site sewer collection mains that will be constructed within the extension area. In its application, the Company inadvertently omitted the estimated cost of the on-site sewer collection mains and the estimated engineering cost and contingency on the off-site facilities. When these additional estimated amounts are included, the total estimated project cost is \$1,043,025. The 86-lot subdivision addressed in the extension application will be developed as a single phase or as two phases (no final decision has been made by the developer on this point), and the Company anticipates that substantially all of the estimated costs for the wastewater treatment plant, lift station and sewer collection mains will be incurred at the beginning of the project.

- (5) Enclosed as <u>Exhibit 5</u> are copies of the original Aquifer Protection Permit (APP No. 102959) and significant amendment of APP No. 102959 issued by ADEQ for the Company's existing treatment facilities.
- (6) The Company estimates that it will start construction of the sewer infrastructure to serve the new extension area on or about June 1, 2008, and that construction will be completed on or about March 1, 2009. (See also Application at page 5).

We believe this response and the corresponding enclosures address all deficiencies listed in your August 31, 2007, letter within the 60-day timeframe as set forth in A.A.C. R14-2-610(C)(3). If you have any questions, please contact me at the number above.

Very truly yours,

SNELL & WILMER

Teff Cockett
Marcie A. Shuman for

Enclosures

cc: Docket Control (13 copies with enclosures)

Gary Brasher (via e-mail with enclosures)

David Grounds (via e-mail with enclosures)

#### Exhibit 1

#### **ARIZONA CORPORATION COMMISSION UTILITIES DIVISION**

ANNUAL REPORT MAILING LABEL - MAKE CHANGES AS NECESSARY



#### WS-01678A

**Baca Float Water Company- Sewer Division** P.O. Box 1536 Tubac, AZ 85646

#### **ANNUAL REPORT**

FOR YEAR ENDING

31 2006 12

FOR COMMISSION USE

ANN05 06



#### **COMPANY INFORMATION**

Aailing AddressP.O. Box 153	36		
Tubac	AZ		
(City)	(State)	(Z	ip)
(520) 308-3177	(520) 398-2407	n/a_	
elephone No. (Include Area Code)	Fax No. (Include Area Code)	Pager/Cell N	lo. (Include Area Code)
mail Addressn/a			
ocal Office Mailing Addresss	(Street)		
(City)	(State)	(Zi	p)
ocal Office Telephone No. (Include Area Code)	Fax No. (Include Area Code)	Pager/Cell 1	No. (Include Area Code)
	ANAGEMENT INFORMATION		
<u>M</u>	ANAGEMENT INFORMATION	<u>ON</u>	
M		ON Mana	ger
Management Contact:	ANAGEMENT INFORMATION Richard Lockwood (Name)	ON Mana (T	ger itle) 85646
Management Contact:	ANAGEMENT INFORMATION Richard Lockwood	Mana (1 AZ (State)	ger Title)85646 (Zip)
Management Contact:	ANAGEMENT INFORMATION Richard Lockwood_ (Name) Tubac_ (City)  (520)398-2407	ON  Mana (1  AZ (State)	ger Title) 85646 (Zip)
Management Contact:	ANAGEMENT INFORMATION  Richard Lockwood  (Name)  Tubac	ON  Mana (1  AZ (State)	ger Title)85646 (Zip)
Management Contact:	Richard Lockwood(Name)	ON  Mana (1  AZ (State)	ger Title) 85646 (Zip)
Management Contact:  P.O. Box 1536 (Street)  (520) 398-3177 Telephone No. (Include Area Code)	Richard Lockwood(Name)	ON  Mana (1  AZ (State)	ger litle) 85646 (Zip)
Management Contact:	ANAGEMENT INFORMATION	Mana (1 AZ (State) Pager/Cell No. (	ger Title) 85646 (Zip) 'a Include Area Code)
Management Contact:	Richard Lockwood (Name)  Tubac (City)  (520)398-2407  Fax No. (Include Area Code)  Lino Vega (Name)	Mana (1 AZ (State) Pager/Cell No. (	ger Title) 85646 (Zip) 'a Include Area Code)
Management Contact: P.O. Box 1536(Street)  520) 398-3177 Telephone No. (Include Area Code)  Email Addressn/a  On Site Manager:  P.O. Box 1536	ANAGEMENT INFORMATION	Mana (1 AZ (State) Paget/Cell No. (  AZ (State)	ger Title) 85646 (Zip) 'a Include Area Code)

Please mark this box if the above address(es) have changed or are updated since the last filing.

G. 4. 4 A4:	Inequaline Rrasher		
Statutory Agent:	(Name)		
	Tubac	AZ	85646
Two Tubac Rd (Street)	(City)	(State)	(Zip)
· · · · · · · · · · · · · · · · · · ·	(520) 308-2407	n/a	
(520) 398-2506 Telephone No. (Include Area Code)	(520) 398-2407 Fax No. (Include Area Code	Pager/Cell No.	(Include Area Code)
Attorney:Michael Milroy	(Name)		
a di Ina	Tucson	AZ (State)	85701
Once Church Road (Street)	(City)	(State)	(Zip)
, -	(520) 884-1294 Fax No. (Include Area Code)	n/a	
Telephone No. (Include Area Code)	Fax No. (Include Area Code)	Pager/Cell No. (	Include Area Code)
		(Other than As	sociation/Co-on
$\overline{\mathbf{O}}$	WNERSHIP INFORMATIO	<u> </u>	
Check the following box that applies to			
Sole Proprietor (S)	xx C Corporation (C) (Other than Association/Co-op)		
Partnership (P)	☐ Subchapter S Corporation (Z)		
☐ Bankruptcy (B)	Association/Co-op (A)		
Receivership (R)	Limited Liability	Company	
Other (Describe)			
	<b>COUNTIES SERVED</b>		
Check the box below for the county/ie	s in which you are certificated to p	rovide service:	
П арасне	☐ COCHISE	□ coc	CONINO
			NENT PE
☐ GILA	☐ GRAHAM	□ GRI	EENLEE
LA PAZ	☐ MARICOPA	□ мо	HAVE
☐ NAVAJO	☐ PIMA	☐ PIN	AL
xx SANTA CRUZ	☐ YAVAPAI	☐ YUN	MA
☐ STATEWIDE			

#### **UTILITY PLANT IN SERVICE**

Acct. No.	DECRIPTION	Original  Cost  (OC)	Accumulated Depreciation (AD)	O.C.L.D. (OC less AD)
351	Organization			
352	Franchises			
353	Land and Land Rights			
354	Structures and Improvements			
355	Power Generation Equipment			
360	Collection Sewers – Force			
361	Collection Sewers - Gravity		×/	
362	Special Collecting Structures		20 7	
363	Services to Customers			
364	Flow Measuring Devices	C)	<u> </u>	
365	Flow Measuring Installations	320		
370	Receiving Wells	22		
380	Treatment and Disposal Equip.	S <sup>2</sup>		
381	Plant Sewers			
382	Outfall Sewer Lines			
389	Other Plant and Misc. Equipment			
390	Office Furniture and Equipment			
391	Transportation Equipment			
393	Tools, Shop and Garage Equip.			
394	Laboratory Equipment			
395	Power Operated Equipment			
398	Other Tangible Plant			
	TOTALS			

This amount goes on the Balance Sheet Acct. No. 108 \_\_\_\_

#### **CALCULATION OF DEPRECIATION EXPENSE**

Acct. No.	DESCRIPTION	Original Cost (1)	Depreciation Percentage (2)	Depreciation  Expense (1x2)
351	Organization			
352	Franchises			
353	Land and Land Rights			
354	Structures and Improvements			
355	Power Generation Equipment			
360	Collection Sewers – Force			
361	Collection Sewers – Gravity			×/
362	Special Collecting Structures			<u> </u>
363	Services to Customers		Ž	
364	Flow Measuring Devices		(%)	
365	Flow Measuring Installations			
370	Receiving Wells		XC/	
380	Treatment and Disposal Equip.		7	
381	Plant Sewers	ye.		
382	Outfall Sewer Lines	9/		
389	Other Plant and Misc. Equipment			
390	Office Furniture and Equipment			
391	Transportation Equipment			
393	Tools, Shop and Garage Equip.			
394	Laboratory Equipment			
395	Power Operated Equipment	/		
398	Other Tangible Plant	4		
	TOTALS			

This amount goes on the Comparative Statement of Income and Expense Acct. 403

#### **BALANCE SHEET**

Acet .		BALANCE AT BEGINNING OF	BALANCE AT END OF YEAR
No.	ASSETS	TEST YEAR	ILAK
	- COTTON		
	CURRENT AND ACCRUED ASSETS	<u></u>	\$ /
131	Cash	\$	13
132	Special Deposits		<del> /</del>
135	Temporary Cash Investments		+ X /
141	Customer Accounts Receivable		
146	Notes/Receivables from Associated Companies	1	
151	Plant Material and Supplies	<u> </u>	<del></del>
162	Prepayments	Co.	
174	Miscellaneous Current and Accrued Assets	\ \(\phi\)	
	TOTAL CURRENT AND ACCRUED ASSETS	s No.	\$
		2/	
·	FIXED ASSETS	52/	
101	Utility Plant in Service	\$	\$
103	Property Held for Future Use	<b></b>	
105	Construction Work in Progress		
108	Accumulated Depreciation – Utility Plant		
121	Non-Utility Property		
122	Accumulated Depreciation – Non Utility		
	TOTAL FIXED ASSETS	\$	\$
ļ	TOTAL ASSETS	\$	\$

NOTE: Total Assets on this page should equal Total Liabilities and Capital on the following page.

#### **BALANCE SHEET (CONTINUED)**

Acct	LIABILITIES	BALANCE AT BEGINNING OF TEST YEAR	BALANCE AT END OF YEAR
No.			
	CURRENT LIABILITES		
231	Accounts Payable	\$	\$
232	Notes Payable (Current Portion)		
234	Notes/Accounts Payable to Associated Companies		
235	Customer Deposits		
236	Accrued Taxes		
237	Accrued Interest		
241	Miscellaneous Current and Accrued Liabilities		/
2	TOTAL CURRENT LIABILITIES	\$ ~	<b>/</b> \$
<b></b>	TOTAL COURSE (T. EARLY)	(7	
	LONG-TERM DEBT (Over 12 Months)	CO	
224	Long-Term Notes and Bonds	\$ 22/	\$
22.	50.5	<u> </u>	
<u> </u>	DEFERRED CREDITS	(0)	
252	Advances in Aid of Construction	\$	\$
253	Other Deferred Credits		
255	Accumulated Deferred Investment Tax Credits	<u> </u>	
271	Contributions in Aid of Construction	3	
272	Less: Amortization of Contributions	7	
281	Accumulated Deferred Income Tax	<i></i>	
	TOTAL DEFERRED CREDITS	\$	\$
	TOTAL LIABILITIES	\$	\$
	CAPITAL ACCOUNTS	\$	\$
201	Common Stock Issued	2	3
211	Other Paid in Capital		
215	Retained Earnings		
218	Proprietary Capital (Sole Props and Partnerships)	\$	\$
<u> </u>	TOTAL CAPITAL	9	Ψ
<u> </u>	/		
	TOTAL LIABILITIES AND CAPITAL	\$	\$

#### COMPARATIVE STATEMENT OF INCOME AND EXPENSE

Acct.	OPERATING REVENUES	PRIOR YEAR	CURRENT YEAR
<b>No.</b> 521	Flat Rate Revenues	\$ 42,892.00	\$ 94,449.00
522	Measured Revenues		
536	Other Wastewater Revenues		
330	TOTAL REVENUES	\$ 42,892.00	\$ 94,449.00
	TOTAL RESTRICTED		
	OPERATING EXPENSES		
701	Salaries and Wages	\$ 57,663.00	\$ 85,052.00
710	Purchased Wastewater Treatment		
711	Sludge Removal Expense		
715	Purchased Power	4,117.00	5,556.00
716	Fuel for Power Production		
718	Chemicals		589.00
720	Materials and Supplies	22,322.00	12,757.00
731	Contractual Services – Professional	14,744.00	9,024.00
735	Contractual Services – Testing	3,659.00	3,853.00
736	Contractual Services – Other	9,829.00	
740	Rents		11,947.00
750	Transportation Expense		179.00
755	Insurance Expense	7,363.00	3,010.00
765	Regulatory Commission Expense		3,111.00
775	Miscellaneous Expense		3,603.00
403	Depreciation Expense	1,513.00	
408	Taxes Other Than Income	112.00	
408.11	Property Taxes	2,061.00	1,015.00
409	Income Taxes		
	TOTAL OPERATING EXPENSES	\$ 123,383.00	\$ 139,696.00
	OTHER INCOME/EXPENSE		
419	Interest and Dividend Income	\$	\$
421	Non-Utility Income		
426	Miscellaneous Non-Utility Expenses		
427	Interest Expense		
441	TOTAL OTHER INCOME/EXPENSE	\$	\$
	IVIAL UI HER INCUME/EAI ENSE		
	NET INCOME/(LOSS)	\$ (80,491.00)	\$ (45,247.00)

#### SUPPLEMENTAL FINANCIAL DATA Long-Term Debt

	LOAN #1	LOAN #2	LOAN #3	LOAN #4
	200.00, 112			
Date Issued				
Source of Loan				
ACC Decision No.				
Reason for Loan				
Dollar Amount Issued	\$	\$ \ \ \ \ \	\$	\$
Amount Outstanding	\$	\$ 2.	\$	\$
Date of Maturity				
Interest Rate	%	%	%	%
Current Year Interest	\$	\$	\$	\$
Current Year Principle	\$	\$	\$	\$

#### WASTEWATER COMPANY PLANT DESCRIPTION

#### TREATMENT FACILITY

TYPE OF TREATMENT		· · · ·			,
(Extended Aeration, Step Ae	ration, Oxidation				
Ditch, Aerobic Lagoon, Ana	erobic Lagoon,				
Trickling Filter, Septic Tank	, Wetland, Etc.)				
DESIGN CAPACITY OF I	PLANT				
(Gallons Per Day)		İ			
	LIFT STAT	ION F	ACILITIES		/
Location	Quanti of Pum	- 1	Horsepower Per Pump	Capacity Per Pump (GPM)	Wet Well Capacity (gals)
	OI I UII	ps	Tel Tulip	7	
		N	<u> </u>		
		/			
	FORC	CE M	<u>AINS</u>		
Size	M	aterial		Lei	ngth (Feet)
4-inch					
6-inch					
/					
	MANHOLES			CLE	EANOUTS
Туре	Quai	ntity			Quantity
Standard					
Drop					

COMPANY NAME: Baca Float Water Co., Inc. - Sewer Division

#### WASTEWATER COMPANY PLANT DESCRIPTION (CONTINUED)

#### **COLLECTION MAINS**

#### **SERVICES**

Size (in inches)	Material	Length (in feet)
4		
6		
8		
10		
12		
15		
18		
21		
24		
30		

Size (in inches)	Material	Quantity
4		
6		
8		
12		
15		

FOR THE FOLLOWING FIVE ITEMS, LIST THE UTILITY OWNED ASSETS IN EACH CATEGORY

SOLIDS PROCESSING AND HANDLING FACILITIES	
DISINFECTION EQUIPMENT (Chlorinator, Ultra-Violet, Etc.)	
FILTRATION EQUIPMENT (Rapid Sand, Slow Sand, Activated Carbon, Etc.)	
STRUCTURES (Buildings, Fences, Etc.)	
OTHER (Laboratory Equipment, Tools, Vehicles, Standby Power Generators, Etc.	

#### WASTEWATER FLOWS

MONTH/YEAR (Most Recent 12 Months)	NUMBER OF SERVICES	TOTAL MONTHLY SEWAGE FLOW	SEWAGE FLOW ON PEAK DAY
(IVACCE RECORD 12 1/252000)			
		. /	
		NA	
	/	1	

#### PROVIDE THE FOLLOWING INFORMATION AS APPLICABLE

Method of Effluent Disposal	
(leach field, surface water discharge, reuse, injection wells, groundwater	
recharge, evaporation ponds, etc.)	
Wastewater Inventory Number	
(all wastewater systems are assigned an inventory number)	
Groundwater Permit Number	
ADEQ Aquifer Protection Permit Number	
ADEQ Reuse Permit Number	
EPA NPDES Permit Number	

#### STATISTICAL INFORMATION

Total number of customers	
Total number of gallons treated	gallons

COMPANY NAME: Baca Float Water Co., Inc. – Sewer Division \_\_\_\_\_YEAR ENDING 12/31/2006

INCOME TAXES					
For this reporting period, provide the following:					
Federal Taxable Income Reported Estimated or Actual Federal Tax Liability	(45,247.00)				
State Taxable Income Reported Estimated or Actual State Tax Liability	(45,247.00)				
Amount of Grossed-Up Contributions/Advances	3 <b>:</b>				
Amount of Contributions/Advances Amount of Gross-Up Tax Collected Total Grossed-Up Contributions/Advances					
close of the tax year when tax returns are com are due to any Payer or if any gross-up tax information by Payer; name and amount of con	ity will refund any excess gross-up funds collected at the pleted. Pursuant to this Decision, if gross-up tax refunds refunds have already been made, attach the following ntribution/advance, the amount of gross-up tax collected, e date the Utility expects to make or has made the refund				
CERTIFICATION					
in the prior year's annual report. This certific	whas refunded to Payers all gross-up tax refunds reported eation is to be signed by the President or Chief Executive all partner, if a partnership; the managing member, if a if a sole proprietorship.				
122	03   30   07				
SIGNATURE	DATE				
Gary P. Brasher	President				
PRINTED NAME	TITLE				

COMPANY NAME: Baca Float Water Co.	. Inc. – Sewer Division	<b>YEAR ENDING 12/31/2006</b>
------------------------------------	-------------------------	-------------------------------

#### **PROPERTY TAXES**

Amount of actual property taxes paid during Calendar Year 2006 was: \$_1,015.00					

## VERIFICATION AND SWORN STATEMENT Taxes

RECEIVED

VERIFICATION

STATE OF Arizona

I, THE UNDERSIGNED

OF THE

	CORPOR	
COUNTY OF (COUNTY NAME): Santa Cruz	DIRECTOR O	ON CONMISSION
NAME (OWNER OR OFFICIAL) TITLE: Gary P. Brasher, President		T UTILITIES
COMPANY NAME: Baca Float Water Co., Inc Sewer Division		

DO SAY THAT THIS ANNUAL UTILITY PROPERTY TAX AND SALES TAX REPORT TO THE ARIZONA CORPORATION COMMISSION

FOR THE YEAR ENDING

MONTH	DAY	YEAR
12	31	2006

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

#### SWORN STATEMENT

I HEREBY ATTEST THAT ALL PROPERTY TAXES FOR SAID COMPANY ARE CURRENT AND PAID IN FULL.

I HEREBY ATTEST THAT ALL SALES TAXES FOR SAID COMPANY ARE CURRENT AND PAID IN FULL.

SIGNATURE OF OWNER OR OFFICIAL

(520) 398-2506

TELEPHONE NUMBER

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF

THIS

MY COMMISSION EXPIRES

CAROL M. RUNKLE
Notery Public - State of Attorns
PMA COUNTY
COMM. Expires Oct. 27, 2008

Jet. 27,2008

MONTH MARCH 20

.2007

unkle

SIGNATURE OF NOTARY PUBLIC

# VERIFICATION AND SWORN STATEMENT Intrastate Revenues Only

COUNTY OF (COUNTY NAME): Santa Cruz

VERIFICATION



STATE OF Arizona	AZ 2007	
1		
I, THE UNDERSIGNED	NAME (OWNER OR OFFICIAL) TITLE: Gary P. Brasher, President  DIRECTOR OF OMMISSION  COMPANY NAME: Baca Float Water Co., Inc. – Sewer Division	
OF THE	THUTTES	
	THE ADVICENT TO THE ADVICENT CORPORATION COMMISSION	
DO SAY THAT THIS ANNUAL	UTILITY REPORT TO THE ARIZONA CORPORATION COMMISSION	
FOR THE YEAR ENDING	MONTH DAY YEAR 12 31 2006	
	12 32	- ~
HAS BEEN PREPAR	RED UNDER MY DIRECTION, FROM THE ORIGINAL BOOK	5,
PAPERS AND RECO	RDS OF SAID UTILITY: THAT I HAVE CAREFULLY EXAMINE	עני
THE SAME AND I	DECLARE THE SAME TO BE A COMPLETE AND CORREC	I ر
STATEMENT OF BU	USINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIO	JC
COVERED BY THIS I	REPORT IN RESPECT TO EACH AND EVERY MATTER AND THIN	U
SET FORTH, TO THE	BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.	
SWORN STATEMENT		
		10
IN ACCORDANCE W	VITH THE REQUIREMENT OF TITLE 40, ARTICLE 8, SECTION 4	1U- 22
401, ARIZONA REVI	ISED STATUTES, IT IS HEREIN REPORTED THAT THE GRO	CE.
OPERATING REVEN	TUE OF SAID UTILITY DERIVED FROM <u>ARIZONA INTRASTAT</u> NS DURING CALENDAR YEAR 2006 WAS:	
UTILITY OPERATION		
	Arizona Intrastate Gross Operating Revenues Only (\$)	
	\$98,270.00	
	(THE AMOUNT IN BOX ABOVE	
	INCLUDES \$3,821.00	
	IN SALES TAXES BILLED, OR COLLECTED)	
**REVENUE REPORTED ON THIS PA		
COLLECTED. IF FOR ANY OTHER		
THE REVENUE REPORTED ABOV	TE DOES NOT A SECOND SE	
AGREE WITH TOTAL OPERATING ELSEWHERE REPORTED, ATTAC		
STATEMENTS THAT RECONCILE	THE SIGNATURE OF OWNER OR OFFICIAL	
DIFFERENCE. (EXPLAIN IN DETA)	IL) (520) 398-2506 TELEPHONE NUMBER	
SUBSCRIBED AND SWORN TO BE	•	
A NOTARY PUBLIC IN AND FOR T	THE COUNTY OF	
A NOTART FUBLIC IN AND FOR I	COUNTY OF COUNTY SAME SANTA CAUZ	
THIS		
CAROL M. R. Nosav Public - Salah	a of Artsona	
SEAL) by Gozen, Spines	04.27,2008	
MY COMMISSION EXPIRES C	SIGNATURE OF NOTARY PUBLIC	
	•	

# VERIFICATION AND SWORN STATEMENT RESIDENTIAL REVENUE INTRASTATE REVENUES ONLY

VERIFICATION

STATE OF Arizona

I, THE UNDERSIGNED

OF THE

COUNTY OF (COUNTY NAME): Santa Cruz

NAME (OWNER OR OFFICIAL): Gary P. Brasher

COMPANY NAME: Baca Float Water Co., Inc. - Sewer Division

DO SAY THAT THIS ANNUAL UTILITY REPORT TO THE ARIZONA CORPORATION COMMISSION

FOR THE YEAR ENDING

MONTH DAY YEAR 12 31 2006

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

#### **SWORN STATEMENT**

IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 40, ARTICLE 8, SECTION 40-401.01, ARIZONA REVISED STATUTES, IT IS HEREIN REPORTED THAT THE GROSS OPERATING REVENUE OF SAID UTILITY DERIVED FROM ARIZONA INTRASTATE UTILITY OPERATIONS RECEIVED FROM RESIDENTIAL CUSTOMERS DURING CALENDAR YEAR 2006 WAS:

ARIZONA INTRASTATE GROSS OPERATING REVENUES

\$ 98,270.00

(THE AMOUNT IN BOX AT LEFT INCLUDES \$\_3,821.00\_\_\_\_\_\_IN SALES TAXES BILLED, OR COLLECTED

\*RESIDENTIAL REVENUE REPORTED ON THIS PAGE MUST INCLUDE SALES TAXES BILLED.

SIGNATURE OF OWNER OR O

(520) 398-2506

TELEPHONE NUMBER

NOTARY PUBLIC NAMÉ

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF

THIS

(SEAL)

CAPOL M. RUNKLE

MY COMMISSION EXPIRES

DAY OF MON

MONTH MARCH

,20<u>07</u>

arel M tintle

SIGNATURE OF NOTARY PUBLI

PARCEL#	AREA CODE	PRIMARY TAX \$100 ASSESS	RATE PER ED VALUE	SECONDARY TAX RATE \$100 ASSESSED VAL		N DISTRICT R ACRE		ARIZON
951-33-501 3	3501	8.32	54	4.9114			PRIMARY PROPERTY TAX	652.
PRIMARY LAND, BLDGS, ETC	VALUE IN DOLLARS	ASSMT %	ASSESSED VA	CHEMI TIONS	TAX RATE NET	ASSESSED	LESS STATE AID TO EDUCATION	0.1
PRIMARY PERSONAL PROPERTY PRIMARY TOTALS	15,798	24.5	3,96: 3,87		8.3254 8.3254	330.44 322.28	NET PRIMARY PROPERTY TAX	652.
SECONDARY LAND SECONDARY BLDGS, ETC	32,000 0	24.5	7,84	0 0		652.72	SECONDARY PROPERTY TAX	361.
SEC. PERSONAL PROPERTY	16,202 15,798	24.5 24.5	3,96	9 0	4.9114 4.9114	0.00 194.94	SPECIAL DISTRICT TAX	0.0
SECONDARY TOTALS	32.000	24.5	3,87 <sup>-</sup> 7,840	1 a 0 0	4.2999	166.44 361.38	TOTAL TAX DUE FOR 2006	1,014.1
041675 - 24 - 24 - 24 - 24 - 24 - 24 - 24 - 2	es en man.			JURISDICTION			2006 TAXES	2005 TAXES
AL DESCRIPTION:	24		02000 07035 11201	SANTA CRUZ SANTA CRUZ TUBAC FD	COUNTY SD #35		259.12 515.90	184.1 365.1
AL VALUE OF OPERATING	A-14-1		11900	FIRE DISTRI	CT ASSIST		206.97 7.84	145.2 5.5
			15001 02001	SANTA CRUZ STATE SCHOO	COUNTY FC		24.27 0.00	27.9
					240		0.00	23.9
4.5								
e is the only notice you								
Caesar Ramirez		9-4						
<ul> <li>Santa Cruz County Trea</li> </ul>	tille?							
2150 N Congress Dr. Nogales AZ 85621-109								
	ISA							
	AR YEAR							
· A IAXI	IOTICE		Maliantin distance assure		TOTAL	S	1,014.10	751.98

951-33-501 3 0007559 01 AV 0.293 "AUTO T3 0 0794 85646-424141 BACA FLOAT SEWER SYSTEM GARY P BRASHER P O BOX 4241 TUBAC AZ 85646-4241

PLEASE RECUBE YORK

THERE WILL BE A CHARGE FOR EACH RETURNED CHECK AND YOUR TAXES WILL REVERT TO AN UNPAID STATUS.

PARCEL NUMBER जित्ताका सिंह

PAYMENT INSTRUCTIONS

To pay the 1st half installment, send the 1st half coupon with your payment postmarked no later than Nov. 1, 2000. To pay the 2nd half installment, send the 2nd half coupon with your payment postmarked no later than May 1, 2007. To pay taxes for the full year if the entire amount billed exceeds \$100, send the 1st half coupon with your payment postmarked no later than 2003. Delinquent interest will be waived.

Make your check payable to and mail to:

Caesar Ramirez Santa Cruz County Treasurer 2150 N Congress Dr Nogales AZ 85621-1091

#### **BACA FLOAT WATER COMPANY INC**

PO Box 1536
Tubac, AZ 85648
520.398-3177
BARRIOCONTROLLER@AOL.COM WWW.BARRIODETUBAC.COM

BANK OF THE WEST 180 West Continental Road #170 Green Valley, AZ 85614 91-564/1221 11832

10/1/2006

PAY TO THE ORDER OF \_\_\_\_ Caesar Ramirez Sa

SEMO

Caesar Ramirez Santa Cruz County Treasure

**\$**\*\*1,014.10

DOLLARS 🖯 🕾

Caesar Ramirez Santa Cruz County Treasure 2150 N. Congress Dr Nogales AZ 85621-1091

Richel Lordel

#D11832# #

284829753 9182 9182 81 18-12-86

10112006 2150 CREDITED TO PAYEE AEG 32081 6085 >111901331< PHX ULBX 90142669 JPMORGAN CHASE BANK NA FT WORTH, TX

5740053667

DO NOT WHITE STAMP OR SIGN BELOW THIS CHA

#### Exhibit 2

#### WASTEWATER COMPANY PLANT DESCRIPTION

#### TREATMENT FACILITY

TYPE OF TREATMENT (Extended Aeration, Step Aeration, Oxidation Ditch, Aerobic Lagoon, Anaerobic Lagoon, Trickling Filter, Septic Tank, Wetland, Etc.)	Sub Surface Constructed Wetlands
<b>DESIGN CAPACITY OF PLANT</b> (Gallons Per Day)	100,000 (4 - 25,000 Gal Cells)

#### **LIFT STATION FACILITIES**

Location	Quantity of Pumps	Horsepower Per Pump	Capacity Per Pump (GPM)	Wet Well Capacity (gals)
Barrio de Tubac Subdivision	98	1/2	10	557,100

#### **FORCE MAINS**

Size	Material	Length (Feet)
4-inch		
6-inch	Green Sewer Pipe	24,500

#### **MANHOLES**

Туре	Quantity
Standard	45
Drop	

#### **CLEANOUTS**

	Quantity	
69		

#### COMPANY NAME: BACA FLOAT WATER CO INC. (SEWER DIVISION CURRENT 2007)

#### WASTEWATER COMPANY PLANT DESCRIPTION (CONTINUED)

#### **COLLECTION MAINS**

#### **SERVICES**

Size (in inches)	Material	Length (in feet)
4	Green Sewer Pipe	9,200
6		
8		
10		
12		
15		
18		
21		
24	2	
30		

Size (in inches)	Material	Quantity
4		
6		
8		
12		
15		
2	Sch 40 PVC 150 PSI	26,000
	(distribution of reuse)	

#### FOR THE FOLLOWING FIVE ITEMS, LIST THE UTILITY OWNED ASSETS IN EACH CATEGORY

SOLIDS PROCESSING AND HANDLING FACILITIES	94 Sewer Tanks (capacity 557,100)
<b>DISINFECTION EQUIPMENT</b> (Chlorinator, Ultra-Violet, Etc.)	Chlorinator and De-Chlorinator
FILTRATION EQUIPMENT (Rapid Sand, Slow Sand, Activated Carbon, Etc.)	Slow Sand Filter
STRUCTURES (Buildings, Fences, Etc.)	Chain Link Fences
OTHER (Laboratory Equipment, Tools, Vehicles, Standby Power Generators, Etc.	Lab Equipment, Tools, Vehicles, Gas Power Generator

#### **WASTEWATER FLOWS**

	231,600 35,800 39,200 148,400	
	39,200	
	<u> </u>	
	148,400	
	209,100	
444.5		
		209,100

#### PROVIDE THE FOLLOWING INFORMATION AS APPLICABLE

Method of Effluent Disposal (leach field, surface water discharge, reuse, injection wells, groundwater recharge, evaporation ponds, etc.)	Reuse
Wastewater Inventory Number (all wastewater systems are assigned an inventory number)	
Groundwater Permit Number	
ADEQ Aquifer Protection Permit Number	APP 102959
ADEQ Reuse Permit Number	
EPA NPDES Permit Number	

#### **STATISTICAL INFORMATION**

The state of the s	
250	
Total number of customers 350	
Total Harriot of Gustonia	
C4.200 D	~a11ana
Total number of gallons treated <u>Average of 4,328 per Day</u>	gallons
Total hamber of Sarions dediced 11,01450 01 110 per	
1	

#### Exhibit 3



### ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.adeq.state.az.us

September 06, 2007

RE: Compliance Status for Baca Float Water Company, Inventory number 102959, Place ID: 265, Permit number: 36054.

Dear Ms. Shuman;

Your request for evaluation of compliance status for the above facility is completed. Our records indicate that Baca Float Water Company has Aquifer Protection Permit number 102959 issued on 12/15/2006.

The Aquifer Protection Permit reporting requirements and monitoring results which have been submitted indicate the facility **is in compliance** based on the current information that is available to ADEQ. There is no enforcement actions are pending.

It should be understood that the compliance status of a facility may change from time to time based upon monitoring results or a facility inspection. Therefore this is based on the most current information available.

Sincerely,

Fred Vakili, EHS- II Water Quality Data Unit Water Quality Compliance Section

#### Exhibit 4

Tubac 40 - Initial Cost Estimate (not based on final design criteria) For General Cost Estimate Purposes Only

Cost	60,000	80,000	16,000	13,200	150,000	520	8,000	8,000	80,000	60,500	18,000	10,000	20,000	25,000	8,800	20,000		578,020	144,505	722,525	
	G	↔	<del>()</del>	↔	↔	↔	↔	B	↔	↔	↔	↔	↔	υ	↔	↔	,	υ		₩	
<b>Unit Cost</b>	10	_	0.2	22	30	0.2	2	2,000	80000	550	50	10,000	20,000	25000	20	10					
Units	<del>ن</del>	sf	sf	ς	رد در	<u>*-</u>	ea	ea	<u>s</u>	ς	So	<u>S</u>	<u>s</u>	<u>s</u>	<u>_</u>	<u>-</u>					
Quantity	6,000	80,000	80,000	009	5,000	2,600	4,000	4	_	110	360	_	~	_	440	2,000					
	Earthwork	30-mil Liner	Geotextile	3" Mulch	Rock	Drain Pipe	Plants	Control Structures/Yard Pipe	Influent Lift Station	Settling tank concrete	Settling Tank excavation	Back up generator	Chlorination/storage	Yard Piping	6' chain link fence	Split rail fence	•	Subtotal	25% Eng and Contingency	Total	

# **PSOMAS**

# **OPINION OF PROBABLE CONSTRUCTION COST**

Job Name:	Tubac 40			Job No.:	05012-03-1055
	Preliminary x	Final		Date:	10/30/2007
Prepared By:	Thomas C. Lodge	Checked By:		Revised:	
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
	PHASE I - NORTH				
1	Sewer - 8 inch PVC	L.F.	2,620	\$35.00	\$91,700
2	Manholes	Ą	18	\$3,000.00	\$54,000
3	HCS	Ä	54		\$21,600
					\$167,300
	PHASE II - SOUTH				
γ	Sewer - 8 inch PVC	F.	1,920	\$35.00	\$67,200
2	Manholes	Ą	11	\$3,000.00	\$33,000
က	HCS	EA.	28	\$400.00	\$11,200
					\$111,400
	Subtotal Sewer Costs		,		\$278,700
	15% Contingency				\$41,800
	Total Sewer				\$320,500

#### Exhibit 5



#### ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

COPY

WU96:495

File No. P-102959

June 11, 1996

Mr. Roy Ross Baca Float Water Company P.O. Box 4241 Tubac, AZ 85646

RE:

Baca Float Water Company WWTP Aquifer Protection Permit No. P-102959

Dear Mr. Ross:

Enclosed is a signed copy of the Aquifer Protection Permit No. P-102959, with Executive Summary, for the Baca Float Water Company Wastewater Treatment Plant. Effective June 7, 1996, under the provisions of Title 18, Chapter 9, Article 1, of the Arizona Administrative Code (A.A.C.), the Baca Float Water Company is authorized to operate its wetlands-based wastewater treatment plant, in Tubac, Arizona, pursuant to the terms and conditions of Aquifer Protection Permit No. P-102959.

If you have any questions about this permit or need further assistance, please contact me at (602) 207-4666. Thank you for your cooperation in protecting the water quality of the State of Arizona.

Sincerely,

William Marceau

Wastewater APP and Reuse Unit

Division of Water Quality

WM:wm

cc: Russ Best, Supervisor, ADEQ Wastewater APP and Reuse Unit

Lynne Dekarske, Water Protection Approvals and Permits Section

Julie Collins, ADEQ, Water Quality Data Unit

Trenlin Hubbert, Southwest Wetlands Group, Inc.

Tom Andrews, Southwest Wetlands Group, Inc.

#### **EXECUTIVE SUMMARY**

#### for

#### AQUIFER PROTECTION PERMIT NO. P-102959 Baca Float Water Company

**Facility Name:** 

Baca Float Water Company

Facility Owner:

Baca Float Water Company P.O. Box 4241 Tubac, AZ 85646

#### Facility Location:

The Baca Float WWTP will be located approximately 1/2 mile southeast of the community of Tubac in Santa Cruz County, in Township 21 S, Range 13 E, Section 18, SW SW SE, over groundwater of the Santa Cruz Active Management Area. The facility will provide wastewater treatment for the Barrio de Tubac residential development, located on property adjacent to the WWTP.

#### **Facility Description:**

This facility is a subsurface flow wetlands-based WWTP that will treat up to 0.1 MGD of primary effluent wastewater discharged from a series of septic tanks at the Barrio de Tubac residential development in Tubac, Arizona. The WWTP as herein permitted does not actually include the septic tanks, which will be under separate ownership. The WWTP will consist of a pre-treatment tank for supplementary BOD and TSS reduction, a flow splitter, four parallel constructed wetland cells designed for subsurface flow, a dosing tank for distribution of flow to downline system components, recirculating sand filters, an aeration channel and habitat pond, and a storage pond for controlling the water level in the habitat pond. Wetland cells will be planted with cattail, bulrush, and common reed. From the habitat pond, treated effluent will be discharged to a land application storage pond, from which it will be applied to 9.3 acres of native vegetation. The land application storage pond has a 10-day effluent storage capacity. All system components, including the terminal land application storage pond, will be lined with a 40 mil polypropylene geomembrane. The entire wastewater treatment, storage, and land application area will be surrounded by a six-foot fence of nonclimbable fabric, topped by three strands of barbed wire. The fenced area will be posted with signs forbidding trespass.

#### Compliance with Aquifer Water Quality Standards (AWQS):

The system is designed to discharge effluent with total nitrogen levels below 8 mg/l. Coliform levels will be reduced by filtration through the wetlands vegetation beds and by exposure to ultraviolet radiation in the high surface area wetlands and storage ponds. The depth to groundwater is 11 feet. Further polishing of the effluent through soil-aquifer treatment is expected because the percolation rate at the disposal site is slow (between 30 and 60 min/inch). Residual coliform levels should be further reduced by this percolation. The wastewater will not contain an industrial component, so the presence of metals or VOCs is not anticipated.

#### Best Available Demonstrated Control Technology (BADCT):

Wetlands-based wastewater treatment is an accepted technology currently used in many states and countries. In the Baca Float facility, all system components will be lined with 40 mil polypropylene geomembrane. The Baca Float system is designed to remove total nitrogen to less than 8 mg/l, BOD to 5 mg/l, and TSS to 5 mg/l. Final effluent should achieve tertiary or advanced secondary quality. The facility therefore meets BADCT.

#### Point of Compliance:

Monitor wells will be drilled at two points of compliance. POC No. 1 is located immediately downgradient of the wetlands cells. POC No. 2 is located immediately downgradient of the land application area. The second POC was designated in order to properly monitor the effect of disposal on a small parcel of private property located within the Baca Float WWTP and the Barrio de Tubac development, immediately downgradient of the land application area. An active private drinking water supply well is located on this property. POC No. 2 therefore will ensure that groundwater is not adversely affected at the drinking water well. Monitor wells at both POCs will be monitored for ambient groundwater conditions prior to facility startup to compare with data obtained later.

#### Monitoring Requirements:

Final effluent will be monitored daily for flow, monthly for pH, quarterly for fecal coliform, monthly for total nitrogen and semiannually for heavy metals. The monthly monitoring for nitrogen will be reduced to quarterly after two years if data shows that nitrogen is being effectively removed. Groundwater at both POC wells will be monitored quarterly for all nitrogen forms (nitrate, nitrite, nitrate and nitrite combined, and total nitrogen) monthly for total coliform, and annually for heavy metals.

#### **Zoning Requirements:**

The applicant has submitted statements from the Santa Cruz County Department of Planning and Zoning, verifying that the facility complies with applicable zoning ordinances and regulations.

#### Technical Capability:

The facility has been designed by an engineer registered in Arizona. Facility owners will obtain a certified operator for the completed WWTP.

#### **Financial Capability:**

The applicant has demonstrated financial capability pursuant to A.A.C. R18-9-108.B.8.c.ii.

#### **Special Circumstances:**

Pursuant to the requirements of the Arizona Department of Water Resources (ADWR) for the Santa Cruz Active Management Area, irrigation "to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry..." is not allowed. For this reason, the facility has been restricted to applying wastewater to natural vegetation for on-site landscaping only. The phrase "land application" is used in the permit in place of "irrigation".

#### STATE OF ARIZONA

#### **AQUIFER PROTECTION PERMIT NO. P-102959**

PART I. AUTHORIZATION TO DISCHARGE POLLUTANTS IN A MANNER SUCH THAT CURRENT AND REASONABLY FORESEEABLE FUTURE USES OF THE AQUIFER ARE PROTECTED

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3; Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 1; A.A.C. Title 18, Chapter 11, Article 4; and conditions set forth in this permit:

Facility Name: Baca Float Water Company WWTP

Owner:

Baca Float Water Company P.O. Box 4241 Tubac, AZ 85646

is authorized to operate the Baca Float Water Company facility located south of the community of Tubac, in Santa Cruz County, Arizona, over groundwater of the Santa Cruz Active Management Area in Township 21 S, Range 13 E, Section 18 SW SW SE, Gila and Salt River Base Line and Meridian, at:

Latitude 31° 36' 30" North Longitude 111° 02' 30" West

This permit shall become effective on the date of the Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) provided that the facility is constructed, operated, and maintained pursuant to all the conditions of this permit according to the design and operational information documented or referenced in PARTS I, II, III, IV, V, VI, and VII of this Permit, and such that Aquifer Water Quality Standards are not violated.

Kimberly W. MacEachern

Director, Water Quality Division

Arizona Department of Environmental Quality

Signed this J

The of

. 1996

#### PART II. SPECIFIC CONDITIONS

#### A. <u>Discharge Limitations</u>

- The permittee is authorized to operate a subsurface flow wetlands-based 1. wastewater treatment plant (WWTP) to treat up to 0.1 million gallons per day (MGD) of primary effluent from a series of septic tanks at the Barrio de Tubac residential development. The WWTP herein permitted shall consist of a pretreatment tank for supplementary BOD and TSS reduction, a flow splitter, four parallel constructed wetland cells designed for subsurface flow, a dosing tank for distribution of flow to downline system components, recirculating sand filters, an aeration channel and habitat pond, and a storage pond for controlling the water level in the habitat pond. Treated effluent shall be discharged to a second storage pond, referred to on design plans accompanying this permit as the land application storage area, with a 10-day effluent storage capacity. From this storage area the effluent shall be applied on 9.3 acres of native vegetation. Effluent shall be applied to the disposal area through a grid of perforated PVC pipes placed at approximately 22 ft. intervals throughout the 9.3 acre site. All system components, including the terminal land application storage pond, prior to the land application site shall be lined with 40 mil polypropylene geomembrane. The WWTP and the land application delivery system shall be constructed as indicated on the design plans approved by and on file at the Arizona Department of Environmental Quality (ADEQ).
- 2. The materials authorized to be disposed of through the Baca Float Water Company WWTP shall consist solely of effluent from septic tanks which treat typical household sewage and pre-treated commercial wastewater. The materials authorized to be applied to the land application area through the delivery system herein permitted shall consist solely of effluent from the Baca Float Water Company WWTP. Neither the Baca Float WWTP nor the septic tanks discharging into this system shall include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
- No cross-connections shall exist between the piping of the effluent disposal system for the Baca Float WWTP and any delivery system for potable water.
- 4. Specific discharge limitations are specified in PART IV, TABLE I.

#### B. Monitoring Requirements

- 1. Discharge Monitoring
  - a. Monitoring Schedule

Discharge from the WWTP shall be monitored according to PART IV, TABLE I.

#### b. Monitoring Location

Discharge monitoring shall be performed at Pump Station Number 2, where effluent is pumped from the land application storage area to the land application site, located at:

Identification	Latitude	Longitude
Pump Station Number 2,	31° 36' 15" N	111° 02' 37" W
Downline of Land		
Application Storage Area		

#### 2. Groundwater Monitoring

#### a. Points of Compliance (POC)

Two points of compliance are designated for this facility in accordance with A.R.S. 49-244, as indicated on sheet 1 of 15 of the design plans on file at ADEQ, and located as indicated in the following:

Identification	Location	Latitude	Longitude
POC No. 1	Hydrologically Downgradient of Wetlands WWTP	31° 36' 13" N	111° 02' 30" W
POC No. 2	Between Land Application Site and Private Property, and Hydrologically Downgradient of Application Site.	31° 36' 14" N	111° 02' 37" W

The Director may designate additional points of compliance if information on groundwater gradients indicates the need.

#### b. Monitor Well Installation

Prior to discharge of any wastewater into the Baca Float wetlands WWTP, monitor wells shall be installed and completed at POC No. 1 and POC No. 2. All monitoring wells shall be installed and located according to plans approved by the Arizona Department of Water Resources (ADWR) and ADEQ, as referenced in PART V.A. After construction, the ADWR registration numbers of the wells shall be incorporated into this permit in PART IV, TABLE II.

#### c. Ambient Groundwater Monitoring

Prior to discharge of any wastewater into the Baca Float wetlands WWTP, at least one groundwater sample shall be taken from each POC monitor well identified in part II.B.2.b. and analyzed for all parameters listed in PART IV, TABLE II.

#### d. Groundwater Compliance Monitoring

Beginning with the date on which discharge of wastewater into the Baca Float wetlands WWTP is initiated, both POC monitoring wells identified in part II.B.2.b. shall be monitored according to the requirements of PART IV, TABLE II.

#### 3. Operational Monitoring

#### a. Pre-Operational QA/QC Requirements

Prior to operation of the facility, the operator shall inspect the facility to verify that all components function as designed. The permittee shall provide written certification to ADEQ, at the address listed in PART II.H.1., that inspection of all components was performed and indicating the results of inspection.

#### b. Facility Maintenance Inspection

- (1) The pollution control structures shall be inspected according to PART IV, TABLE III. A log of these inspections shall be kept at the facility for ten (10) years from the date of each inspection, available for review by ADEQ personnel.
- (2) If any damage to the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form and submitted quarterly to ADEQ at the address listed in PART II.H.1.

#### 4. Sampling Protocols

#### a. Discharge Monitoring System

Sample collection, preservation, and holding times shall be consistent with the most recent ADEQ Quality Assurance Project Plan.

#### b. Groundwater Monitoring

- (1) Sampling procedures, preservation techniques and holding times shall be consistent with the most recent ADEQ Quality Assurance Project Plan.
- (2) Static water levels shall be measured and recorded prior to sampling a well. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well should be allowed to recover to 80% of the original borehole volume,

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 5 of 29

or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as dry for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported on the Self-Monitoring Report Form.

#### 5. Installation and Maintenance of Monitoring Equipment

a. Discharge Monitoring Equipment

The permittee shall provide monitoring or sampling access, ports, or devices at the facility for all monitoring required in this permit.

b. Groundwater Monitoring Equipment

Any groundwater monitoring wells, if required by this permit, shall be installed and maintained according to plans approved by ADEQ so that proper groundwater samples can be collected. Should additional groundwater wells be determined necessary, the construction details shall be submitted to ADEQ, at the address specified in PART II.H.1., for approval.

#### 6. Monitoring Records

The following information associated with each sample, inspection or measurement and the name of each individual who performed the sampling, inspection, or measurement shall be included in the monitoring records:

- a. Date, time and exact place of sampling, inspection, or measurement and the name of each individual who performed the sampling, inspection, or measurement;
- b. Procedures used to collect the sample, perform the inspection, or make the measurement;
- c. Date on which sample analysis was completed;
- d. Name of each individual and laboratory who performed the analysis;
- e. Analytical techniques or methods used to perform the sampling and analysis; laboratory detection limit for each test method performed; analytical variance for each parameter analyzed;
- f. Chain of custody records;
- g. Any field notes relating to the information described in subparagraphs a through f above.

#### C. Contingency Plan Requirements

The permittee shall maintain at least one copy of the approved contingency plan(s) at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall revise promptly all copies of the contingency plan(s) to reflect approved changes. The permittee shall advise anyone responsible for the operation of the facility of the location of copies of all contingency and emergency plans.

In addition to the information contained in the approved contingency plan referenced in Part V.A, at a minimum the following contingency requirements shall be implemented.

- 1. Alert Level (AL), Discharge Limit (DL) or Aquifer Quality Limit (AQL) Exceedance
  - a. The permittee shall notify the Department at the address specified in PART II.H.1 within five days of becoming aware of the exceedance of an AL, DL or AQL.
  - b. Verification sampling shall be conducted within five days of becoming aware that an AL, DL or AQL has been exceeded.
  - c. Within five days of receiving the results of verification sampling from the laboratory, the permittee shall notify the Department of the results, at the address indicated in PART II.H.1, regardless of whether the results are positive or negative.
    - (1) If the results of verification sampling indicate that an AL, DL or AQL has not been exceeded, the permittee shall assume that no exceedance has occurred. Unless the permittee is otherwise instructed by the Department, no further action is required until the next scheduled monitoring round.
    - (2) If the results of verification sampling verify that an AL, DL or AQL has been exceeded, the permittee shall, within 30 days of receiving the laboratory results verifying that an AL, DL, or AQL has been exceeded, submit to ADEQ either (i) or (ii) of the following:
      - (a) a written report which includes the documentation specified in PART II.H.3.b.; upon approval by the Department, the permittee shall initiate the actions necessary to mitigate the impacts of the exceedance; at a minimum, the plan shall include provisions for more frequent sampling until constituent concentration is below the AL, DL or AQL for two consecutive samples; the plan shall also indicate if any additional parameters are to be tested for;

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 7 of 29

- (b) a demonstration that the AL, DL or AQL exceedance resulted from error(s) in sampling, analysis, or statistical evaluation, or from natural fluctuation in the parameter which exceeded the permit limit.
- d. In the event of an AL, DL, or AQL exceedance, the Department may require additional monitoring, studies, or remedial activities beyond those specified in this permit. In addition, if the permittee submits a demonstration that the AL, DL, or AQL exceedance was due to error(s) in sampling, analysis, or statistical evaluation, or to natural fluctuations, and this demonstration is not accepted by ADEQ, the Department may require that the permittee submit the documentation included in PART II.H.3.b.

#### 2. Nitrogen Discharge Monitoring

If discharge monitoring indicates that the WWTP is not consistently removing nitrogen to below the discharge limits listed in TABLE I, ADEQ shall have the right to extend the duration of monthly discharge monitoring for nitrogen forms beyond the two years indicated in TABLE I. In addition, after the permittee has initiated quarterly discharge monitoring for nitrogen pursuant to TABLE I, ADEQ shall have the right to require the permittee to return to monthly nitrogen monitoring if the monitoring data indicate that the WWTP is not effectively removing nitrogen.

#### 3. Spills/Accidental Discharge

- a. In the event of any unauthorized discharge or spill of sewage, septage, partially treated wastewater, or effluent, the permittee shall take all necessary measures to insure that the health and safety of Barrio de Tubac residents, the general public, and the environment are not endangered. The affected area shall be promptly isolated and information on persons that may have been exposed to the material shall be recorded. If the material is either sewage or septage, a qualified contractor shall remove and dispose of the material according to applicable federal, state, county, and city regulations.
- b. The permittee shall correct any failure that results in the violation of a permit condition and take the following actions:
  - (1) Within 30 days of a sewage, septage, partially treated wastewater, or effluent spill or accidental discharge that might cause the violation of an Aquifer Water Quality Standard or might cause imminent and substantial endangerment to human health or to the environment, the permittee shall submit to the Department, at the address specified in PART II.H.1., a written report that includes the documentation required in PART II.H.3.b.

(2) Upon review of the above required report, the Department may require additional monitoring and/or actions.

#### 4. Drainage Failure

If a drainage structure such as a diversion berm or a ditch fails or is blocked, prompt action shall be taken to repair the structures with readily available materials, in order to minimize impacts on the facility. Temporary repairs shall be replaced by permanent repairs as soon as conditions allow. Permanent repair structures shall be designed to prevent future failures.

#### 5. Emergency Response

- (a) The permittee shall provide for emergency response on a 24-hour basis in the event that a condition arises which results in imminent and substantial endangerment to human health or to the environment. A plan for emergency response shall be kept at the facility and shall provide for the following:
  - (1) designation of an emergency response coordinator who shall notify ADEQ and activate the necessary contingency plan in the event of an emergency;
  - (2) a general description of the procedures, personnel and equipment to be used to assure appropriate mitigation of unauthorized discharges; and
  - (c) a list of names, addresses and telephone numbers of persons to be contacted in the event of an emergency.
- (b) The emergency response coordinator shall notify ADEQ immediately in the event that emergency response measures are taken or those portions of the contingency plan that address an imminent and substantial endangerment are activated.

#### D. Temporary Cessation

The permittee shall notify ADEQ in writing before temporary cessation of any operation at the facility. Notification of the temporary cessation does not relieve the permittee of any permit requirements unless otherwise specified in this permit. Accompanying the notification shall be a description of any measures to be taken to maintain discharge control systems such that discharge is minimized to the greatest extent practicable during temporary cessation.

#### E. Closure

1. The permittee shall notify ADEQ of his intent to cease, without intent to resume, an activity for which the facility was designed or operated, prior to ceasing. Within 90 days following notification, the permittee shall submit for

approval, to ADEQ, a closure plan which eliminates, to the greatest extent practicable, any reasonable probability of further discharge from the facility and of exceeding Aquifer Water Quality Standards at the point(s) of compliance. This plan shall be in addition to any approved closure method referenced in the facility file. The plan shall describe the following details:

- a. The approximate quantities and the chemical, biological, and physical characteristics of the materials to be removed from the facility;
- b. the destination of the materials to be removed from the facility and an indication that placement of the materials at that destination is approved;
- c. the approximate quantities and the chemical, biological, and physical characteristics of the materials that will remain at the facility;
- d. the methods to be used to treat any materials remaining at the facility;
- e. the methods to be used to control the discharge of pollutants from the facility;
- f. any limitations on future land or water uses created as a result of the facility's operations or closure activities;
- g. the methods to be used to secure the facility;
- h. an estimate of the cost of closure; and
- i. a schedule for implementation of the closure plan and the submission of a post-closure plan.
- 2. Upon ADEQ approval of the closure plan, the permittee shall implement the plan, including any modifications to the plan required by ADEQ in order to ensure that closure eliminates, to the greatest extent practicable, any reasonable probability of further discharge from the facility and of exceeding Aquifer Water Quality Standards at the applicable point of compliance.
- 3. Upon completion of closure activities, the permittee shall give written notice to ADEQ indicating that the approved closure plan has been implemented fully, and shall provide proof of the inclusion in the deed to the property of complete information about the materials buried or discharged at the facility and any limitations on future land or water uses created as a result of the facility's operations or closure activities.

#### F. Post-Closure

 Post-closure requirements by ADEQ will be based on review of facility closure activities.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 10 of 29

- 2. If post-closure requirements are deemed to be necessary, the permittee shall submit a post-closure plan, prior to initiating post-closure activities, to the address specified in PART II.H.1. The plan shall describe all of the following:
  - a. The duration of the post-closure care.
  - b. The monitoring procedures to be implemented by the permittee, including monitoring frequency, type, and location.
  - c. A description of the operating and maintenance procedures to be implemented for aquifer quality protection devices, such as liners, treatment systems, pump-back systems, and monitoring wells.
  - d. A schedule and description of physical inspections to be conducted at the facility following closure.
  - e. An estimate of the cost of post-closure maintenance and monitoring.
  - f. A description of limitations on future land or water uses, or both, at the facility site as a result of facility operations.

ADEQ reserves the right to modify the post-closure plan as necessary to ensure that aquifer water quality will be protected. Upon review and approval of the plan by ADEQ, the permittee shall initiate post-closure activities.

3. The permittee shall notify ADEQ in writing when the post-closure activities have been completed.

#### G. Compliance Schedule Requirements

1. A copy of the emergency response plan shall be submitted to ADEQ, at the address listed in PART II.H.1., within 30 days from the effective date of this permit. The plan shall include the information referenced in PART II.C.5.a.

#### H. Reporting Requirements

1. Reporting Location

Signed copies of all reports, notifications and correspondence required in this permit shall be submitted to the Department, at:

Arizona Department of Environmental Quality Aquifer Protection Permit Compliance 3033 N. Central Avenue Phoenix, Arizona 85012

Phone Number: (602) 207-4675

#### 2. Monitoring Reporting

- a. The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in PART IV, TABLE III and submit it to ADEQ quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.
- PART IV, TABLES I and II contain the frequency for reporting results from discharge and groundwater monitoring requirements.
   Results shall be submitted on the Self-Monitoring Report Form.
   Monitoring methods shall be recorded and any deviations from the methods and frequencies prescribed in this permit shall be reported.
- c. The permittee shall complete the Self-Monitoring Report Forms, to be supplied by the Department, to the extent that the information reported may be entered on the form. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit.

#### 3. Permit Violation or Alert Level Exceedance Reporting

- a. The permittee shall notify ADEQ within five days of becoming aware of a violation of any permit condition, including violation of a discharge limit or an aquifer quality limit, or an exceedance of an alert level.
- b. The permittee shall submit a written report, to the address specified in PART II.H.1., within 30 days after becoming aware of a violation of a permit condition, including violation of a discharge limit or an aquifer quality limit, or an exceedance of an alert level. The report shall document all of the following:
  - (1) a description of the violation/exceedance and its cause;
  - the period of violation/exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the violation/exceedance is expected to continue;
  - (3) any action taken or planned to mitigate the effects of the violation/exceedance, or to eliminate or prevent recurrence of the violation/exceedance;
  - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
  - (5) any malfunction or failure of pollution control devices or other equipment or process.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 12 of 29

#### 4. Modification Reporting

- a. All requests for permit modifications shall be done in accordance with PART VI.H.3., unless otherwise specified in this permit.
- b. Requests for a major modification to a facility (as defined in PART V.C.24.) shall be submitted at least 180 calendar days before making the major modification.

#### 5. Operational Reporting

- a. The permittee shall report the operational conditions listed in PART IV, TABLE IV, on the Self-Monitoring Report form quarterly. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate that fact on the Self-Monitoring Report Form.
- b. The permittee shall submit the data required in PART IV, TABLES I through IV, regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

#### 6. Self-Monitoring Reports

The Self-Monitoring Report shall include: Copies of laboratory analysis forms, documentation on sampling date and time, name of sampler, static water level in wells prior to sampling, sampling method, purging volume, indicator parameters, analytical method, method detection limit, date of analysis, preservation and transportation procedures, and analytical facility. Data shall be compiled on standardized forms which allow comparison with past reports.

#### 7. Reporting Schedule

Samples taken:

Report due by:

Samples taken during quarter beginning	Quarterly Report due by	
Jan 1	Apr 28	
Apr 1	Jul 28	
Jul 1	Oct 28	
Oct 1	Jan 28	

#### PART III. OTHER CONDITIONS

#### A. <u>Analytical Methodology</u>

Water samples shall be analyzed using U.S. Environmental Protection Agency (EPA) approved methods or State of Arizona approved methods. Any EPA or State of Arizona approved method may be used as long as it provides a method detection limit which accurately quantifies the concentration of the parameter listed. For parameters for which an AL, DL or AQL is specified in this permit, the method detection limit must be lower than the AL, DL or AQL specified. ADEQ reserves the right to reject data due to inaccurate method detection limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure & Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of certified laboratories can be obtained at the address listed below:

Arizona Department of Health Services
Office of Laboratory Licensure & Certification
3443 North Central Avenue
Phoenix, Arizona 85012

Phone Number: (602) 255-3454

#### B. Environmental Laboratory Contact

Upon submittal of samples to a state-certified laboratory for analysis, the permittee shall forward a copy of the signed permit to the laboratory for reference.

#### C. Facility Security

All WWTP components, as well as the land application storage pond, shall be fenced in compliance with the requirements of ADEQ. The land application area shall be surrounded by a six-foot fence of non-climbable fabric topped by three strands of barbed wire. The fenced area shall be posted with signs forbidding trespass.

#### D. Facility Operator Requirements

The WWTP shall be operated by an operator certified in the State of Arizona.

PART IV.

**TABLES** 

#### TABLE I DISCHARGE MONITORING

Sampling Point Number	Identification	Latitude	Longitude
# 1	Pump Station Number 2,	31° 36′ 15″ N	111° 02' 37" W
" -	Downline of Land Application		
	Storage Area		

#### ANALYTICAL METHODOLOGY

In measuring an Alert Level (AL) or Discharge Limit (DL), any EPA or State of Arizona approved analytical method may be used as long as it provides a method detection limit which is lower than the AL or DL specified in this TABLE for the parameter in question, and otherwise accurately quantifies the concentration of the parameter listed.

Parameter	Alert Level (AL) <sup>1</sup>	Discharge Limit (DL) <sup>1</sup>	Sampling Frequency	Reporting Frequency
Nutrients:				
Flow <sup>2</sup>	N/A <sup>3</sup>	0.1 MGD <sup>1</sup>	Daily	Quarterly
pH	N/A	4.5 - 9	Monthly	н
Fecal Coliform <sup>1</sup>	N/A	1000 CFU/100 ml <sup>1</sup> or	Quarterly	<b>"</b>
		MPN/100 ml		
Total Nitrogen <sup>4</sup>	8.0 mg/l <sup>1</sup>	10.0	Monthly for two years, then Quarterly <sup>5</sup>	**
Metals:				
Antimony	0.005	0.006	Semiannually	Semiannually
Arsenic	07.04	0.05	п	11

All numeric monitoring limits listed in TABLES I and II are in mg/l except the limits for: flow, which is in million gallons per day (MGD); pH, which is in standard pH units; and coliform, which is in CFU (Colony Forming Units) per 100 ml. Coliform may also be reported as Most Probable Number (MPN) of equal or lesser values.

 $^{3}$  N/A = Not applicable.

<sup>4</sup> Total Nitrogen is equal to Nitrate/Nitrite-N plus Total Kjeldahl Nitrogen (TKN). Total Kjeldahl Nitrogen (TKN) inleudes ammoniacal N and organic N.

<sup>&</sup>lt;sup>2</sup> Flow shall be measured at an in-line turbine meter at pump station number 2, where effluent is pumped from the land application storage area to the land application area.

This change in N monitoring frequency shall not occur unless the permittee requests it in writing, and ADEQ approves the request after reviewing monitoring data to date. The period of two years shall begin at the date of facility start-up. If discharge monitoring indicates that the WWTP is not consistently removing Nitrogen to below the discharge limits listed in TABLE I, ADEQ shall have the right to extend the duration of monthly discharge monitoring for Nitrogen forms beyond the two years indicated in this TABLE. In addition, after the permittee has initiated quarterly discharge monitoring for Nitrogen, ADEQ shall have the right to require the permittee to return to monthly Nitrogen monitoring if the monitoring data indicate that the WWTP is not effectively removing Nitrogen.

#### TABLE I DISCHARGE MONITORING

(Continued)

	(00			
Barium	1.60	2.00	Semiannually	Semiannually
Beryllium	0.0032	0.004	#	*1
Cadmium	0.004	0.005	н	-11
Chromium (total)	0.08	0.1	н	"
Lead	0.04	0.05	н	"
Mercury	0.0016	0.002	н	11
Nickel	0.08	0.1	. 11	11
Selenium	0.04	0.05	н	H .
Thallium	0.0016	0.002	H	n n

#### TABLE II GROUNDWATER DETECTION MONITORING

Sampling Point Number	Well Number	Cadastral Location	ADWR Registration Number	Latitude	Longitude
#2	POC No. 1	(D-21- 13)18daa		31° 36' 13" N	111° 02' 30" W
#3	POC No. 2	(D-21- 13)18dcc		31° 36′ 14″ N	111° 02' 37" W

#### ANALYTICAL METHODOLOGY

In measuring an Alert Level (AL) or Aquifer Quality Limit (AQL), any EPA or State of Arizona approved analytical method may be used as long as it provides a method detection limit which is lower than the AL or AQL specified in this TABLE for the parameter in question, and otherwise accurately quantifies the concentration of the parameter listed.

Parameter	Alert	Aquifer	Sampling	Reporting Frequency
	Level (AL)	Quality Limit	Frequency	Frequency
	(AL)	(AQL) <sup>1</sup>		

Microbiologicals:				
Total Coliform <sup>1, 6</sup>	0.0	0.0	Monthly	Quarterly
	CFU/100 ml	CFU/100 ml		
	or	or		
	MPN/100 ml	MPN/100 ml		
	(See Footnote	(See Footnote		
	No. 6)	No. 6)		

NOTE: Footnotes 1 and 4 are as listed for TABLE I.

The AQL for total coliform is equal to the aquifer water quality standard (AWQS) for microbiological contaminants (R18-11-406.F.), which is based on the presence or absence of total coliforms in a 100 ml sample. If a sample is total coliform-positive, a 400 milliliter repeat sample shall be taken within two weeks of the time the sample results are reported. Any total coliform-positive repeat sample following a total coliform-positive sample constitutes a violation of the aquifer water quality standard for microbiological contaminants, and of the AQL for total coliform listed in this permit.

# TABLE II GROUNDWATER DETECTION MONITORING (Continued)

ħ	J:	tragan	Forms
1.	<b>4</b> 1	irnyen	romas

Nitrogen Forms Nitrate as N	8.0 mg/l <sup>1</sup>	10.0	Quarterly <sup>7</sup>	Quarterly
Nitrite as N	0.8	1.0	n	Ħ
Nitrate and Nitrite as N	8.0	10.0	н	н
Total Nitrogen <sup>4</sup>	Reserved	Reserved	n	**
Metals:				
Antimony	0.005	0.006	Annually	Annually
Arsenic	0.04	0.05	п	11
Barium	1.60	2.00	н	n
Beryllium	0.0032	0.004	н	**
Cadmium	0.004	0.005	н	"
Chromium (total)	0.08	0.1	u u	**
Lead	0.04	0.05	II.	**
Mercury	0.0016	0.002	n	n
Nickel	0.08	0.1	Ħ	"
Selenium	0.04	0.05	п	81
Thallium	0.0016	0.002	"	17

ADEQ reserves the right to increase the frequency of groundwater monitoring for Nitrogen forms if, at any point during the life of this facility, discharge monitoring pursuant to TABLE I indicates that total Nitrogen levels in the effluent exceed the discharge limit for two or more consecutive sampling rounds.

### TABLE III FACILITY INSPECTION

Parameter	Performance Levels	Inspection Frequency
Liner Integrity	No Visible Cracks or Leaks	Quarterly
Berm Integrity	No Visible Erosion	Monthly
Swale Integrity (Land Application Area)	No Visible Blockage	Monthly
Pump Integrity (All Pumps throughout WWTP and Effluent Distribution Lines)	Good Working Condition	Monthly
Freeboard in Ponds	Minimum of 3 feet	Monthly

## TABLE IV OPERATIONAL REPORTING SUMMARY

<b>Operational Condition</b>	Specific Reference for Necessary Action
Alert Level (Either Discharge or Groundwater), Discharge Limit, or Aquifer Quality Limit Exceedance	PART II.C.1.
Accidental Discharge	PART II.C.2.
Emergency Response	PART II.C.4.
Temporary Cessation	PART II.D.
Closure	PART II.E.
Post-Closure	PART II.F.
Major Modification to Facility	PART II.H.4.b.
Modification to Permit	PART VI.H.3.
Bankruptcy or Environmental Enforcement Against the Permittee	PART VI.C.
Change in Owner or Operator (Permit Transfer)	PART VI.H.4.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 18 of 29

### PART V. REFERENCES: PERTINENT INFORMATION

A.	Refere	References			
	The te upon t	rms and conditions set forth in this pe he information contained in the follow	rmit have been developed based ving:		
	1.	Field Inspection Form(s):			
	2	Permit Application Received by AI	DEQ: 9/19/94		
	3.	Hydrologic Review Completed:	8/14/95		
	4.	Engineering Review File Number:	940558		
	5.	ADEQ Approval of Well Construct	ion Plans: 8/14/95		
	6.	Plan Approval by WPAP Section:			
	7.	Amendments to above No. 2:			
	8.	Public Notice Published	2/23/96		
	9.	Public Hearing comments, corresponding supplemental information contained	ondence and any additional in the permit file.		
	10.	Other			
В.	Facilit	ty Information			
	1.	Facility Contact Person Mr.	Roy Ross		
	2.	Address: Baca Float Water Company			
	3.	Emergency Telephone Number:	520-398-2506		
		The Department shall be notified w facility contact person.	rithin 30 days of the change in		
	4.		Baca Float Land Development Limited Partnership P.O. Box 4241		

#### C. <u>Definitions</u>

- 1. "Alert Level (AL)" means a numeric value, expressing either a concentration of a pollutant or a physical or chemical property of a pollutant, which is established in an individual AquiferProtection Permit and which serves as an early warning indicating a potential violation of either an Aquifer Water Quality Standard at the applicable point of compliance, or any permit condition.
- 2. "Applicant" means the owner or operator of the facility.
- 3. "Aquifer Protection Permit (APP)" means an individual, or general permit issued pursuant to A.R.S. Section 49-203 and 49-241 through 251, and A.A.C. R18-9-101 et sec.
- 4. "Aquifer Quality Limit (AQL)" means the maximum amount of a given constituent which the permit conditions allow in the aquifer at the point of compliance.
- 5. "Aquifer Water Quality Standard" means a standard established pursuant to A.R.S. Section 49-221 and 49-223.
- 6. "Areal composite sample" means a set of samples collected from an area and combined into a single sample. The number and spacing shall be representative of the quality of the accumulated material.
- 7. "BADCT" means the Best Available Demonstrated Control Technology, processes, operating methods, or other alternatives to achieve the greatest degree of discharge reduction determined for a facility by the Director pursuant to A.R.S. Section 49-243.B and D.
- 8. "Chain of Custody Form" is used to maintain and document sample possession for enforcement purposes (User's Guide to the EPA Contract Laboratory Program).
- 9. "Department" means the Department of Environmental Quality.
- 10. "Director" means the Director of Environmental Quality or the Director's designee.
- 11. "Discharge" means, for purposes of the aquifer protection permit program prescribed by A.R.S. Title 49, Chapter 2, Article 3, the addition of a pollutant from a facility either directly to an aquifer or the land surface or the vadose zone in such a manner that there is a reasonable probability that the pollutant will reach an aquifer.
- 12. "Discharge Impact Area" means the potential areal extent of pollutant migration, as projected on the land surface, as the result of a discharge from a facility.
- 13. "Discharge Limitation (DL)" means any restriction, prohibition, limitation or criteria established by the Director, through a rule, permit or order, on quantities, characteristics of pollutants.
- 14. "Drywell" has the meaning ascribed to it in A.R.S. Section 49-331.3.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 20 of 29

- 15. "Environment" means navigable waters, any other surface water, groundwater, drinking water supply, land surface, subsurface strata or ambient air, within or bordering on this state.
- 16. "Exceedance" means violation of environmental protection standards by exceeding allowable limits or concentration levels.
- 17. "Existing facility" means a facility on which construction began before September 26, 1989 and which is neither a new facility nor a closed facility. For purposes of this definition construction on a facility has begun if the facility owner or operator has either:
  - Begun, or cause to begin, as part of a continuous on-site construction program
    any placement, assembly or installation of a building, structure or equipment;
    or
  - b. Entered a binding contractual obligation to purchase a building, structure or equipment which is intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility engineering and design studies, do not constitute a contractual obligation for purposes of this definition.
- 18. "Facility" means any land, building, installation, structure, equipment, device, conveyance, area, source activity or practice from which there is, or with reasonable probability may be, a discharge.
- 19. "Groundwater Quality Protection Permit" means a permit issued by the Arizona Department of Health Services or the Department pursuant to A.A.C. R9-20-208 prior to September 26, 1989.

#### 20. "Hazardous substance" means:

- a. Any substance designated pursuant to Section 311(b)(2)(a) and 307(a) of the Clean Water Act;
- b. any element, compound, mixture solution or substance designated pursuant to Section 102 of CERCLA;
- any hazardous waste having the characteristics identified under or listed pursuant to A.R.S. 49-922;
- d. any hazardous air pollutant listed under 112 of the Federal Clean Air Act (42 United States Code Section 7412);
- e. any imminently hazardous chemical substance or mixture with respect to which the administrator has taken action pursuant to Section 7 of the Federal Toxic Substances Control Act (15 United States Code Section 2606); and
- f. any substance which the Director, by rule, either designates as a hazardous substance following the designation of the substance by the Administrator under the authority described in subdivisions (a) through (e) of this paragraph

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 21 of 29

or designates as a hazardous substance on the basis of a determination that such a substance represents an imminent and substantial endangerment to public health.

- 21. "Inert material" means that which is insoluble in water and will not decompose or leach substances to water, such as broken concrete, brick, rock, gravel, sand, uncontaminated soils.
- 22. "Injection well" means a well which receives a discharge through pressure injection or gravity flow.
- 23. "mg/l" means milligrams per liter.
- 24. "Major Modification(s) to a Facility" means any of the following:
  - a. A physical change in an existing facility or change in its method of operation that results in a significant alteration in the characteristics or volume of the pollutants discharged.
  - b. The addition of a process or major piece of production equipment, building or structure that is physically separated from the existing operation and that causes adischarge.
- 25. "NPDES Permit" means a permit issued by the United States Environmental Protection Agency for discharge to the waters of the United States as required by the Clean Water Act, as amended.
- 26. "New Facility" means a previously closed facility that resumes operation or a facility on which construction was begun after the effective date of this chapter on a site at which no other facility is located or to totally replace the process or production equipment that causes the discharge from an existing facility. A major modification to an existing facility is deemed a new facility to the extent that the criteria in A.R.S. 49-243, subsection B, paragraph 1 can be practicably applied to such modification.
- 27. "Operator" means any person who makes management decisions regarding facility operations governed by this permit.
- 28. "Owner" means any person holding legal or equitable title in any real property subject to this permit.
- 29. "Point of Compliance" means the designated point or points as determined by the Director pursuant to A.R.S. Title 49, Section 244.
- 30. "Pollutant" means fluids, contaminants, toxic wastes, toxic pollutants, dredged spoil, solid waste, substances and chemicals, pesticides, herbicides, fertilizers and other agricultural chemicals, incinerator residue, sewage, garbage, sewage sludge, munitions, petroleum products, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and mining, industrial, municipal and agricultural wastes or any other liquid, solid, gaseous or hazardous substances.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 22 of 29

- 31. "Recharge project" has the meaning ascribed to it A.R.S. Section 45-651.5.
- 32. "Regulation" means A.A.C. Title 18, Chapter 9, Article 1, requirements for facilities affecting aquifer water quality.
- 33. "Sewage" means wastes from toilets, baths, sinks, lavatories, laundries, and other plumbing fixtures in residences, institutions, public and business building, mobile homes, watercraft, and other places or human habitation, employment, or recreation.
- 34. "Sewage disposal system" means a system for a sewage collection, treatment and discharge by surface or underground methods.
- 35. "Surface impoundment" means a pit, pond or lagoon, having a surface dimension that is equal to or greater than its depth, which is used for the storage, holding, settling, treatment or discharge of liquid pollutants containing free liquids.
- 36. "Temporary cessation" means any cessation or operation of a facility for a period of greater than 60 days but which is not intended to be permanent.
- 37. "Toxic pollutant" means a substance that will cause significant adverse reactions if ingested in drinking water. Significant adverse reactions are reactions that may indicate a tendency of a substance or mixture to cause long-lasting or irreversible damage to human health.
- 38. "ug/l" means micrograms per liter.
- 39. "Underground storage and recovery project" has the meaning ascribed to it in A.R.S. Section 45-802.6.
- 40. "Vadose zone" means the zone between the ground surface and any aquifer.
- 41. "Well" means a bored, drilled or driven shaft, pit or hole whose depth is greater than its largest surface dimension.

#### PART VI. GENERAL CONDITIONS: RESPONSIBILITIES

#### A. Preservation of Rights

This permit shall not be construed to abridge or alter causes or action or remedies under the common law or statutory law, criminal or civil, nor shall any provision of this permit, or any act done by virtue of this permit, be construed so as to stop any person, this State or any political subdivision of this site, or owners or land having groundwater or surface water rights or otherwise, from exercising their rights or, under the common law or statutory law, from suppressing nuisances or preventing injury due to discharges.

#### B. Monitoring Requirements

The permittee shall conduct any monitoring activity necessary to assure compliance with any permit condition, with Aquifer Water Quality Standards, and with A.R.S. 49-241 through 49-251:

- 1. The permittee shall install, use and maintain all monitoring equipment in acceptable condition or provide alternate methods approved by the Department; and
- 2. the permittee is required to conduct monitoring of a type and frequency sufficient to yield data, which are representative of the monitored activity and approved by the Department.

#### C. Reporting of Bankruptcy or Environmental Enforcement

The permittee shall notify ADEQ, at the address listed in PART II.H.1., within five (5) days after the occurrence of either:

- 1. The filing of bankruptcy by the permittee; or
- the entry or any order or judgement against the permittee for the enforcement of any environmental protection statute and in which monetary damages or civil penalties are imposed.

#### D. Site Examination

- 1. On presentation of credentials, the Department may, if reasonably necessary, inspect the facility or an activity used for the generation, storage, treatment, collection or disposal of any waste or pollutant, and where records are kept for the purpose of ensuring compliance with A.R.S. Title 49, Chapter 2, A.A.C. R18-9-101 through 130 and this permit, or to verify information submitted in a permit application, or documented in a permit including any permit conditions.
- 2. The Department may:
  - a. Obtain samples;

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 24 of 29

- b. analyze or cause to be analyzed any samples either on-site or at another location;
- c. take photographs;
- d. inspect equipment, activities, facilities and monitoring equipment or methods of monitoring; or
- e. inspect and copy any records required to be maintained.
- 3. Any pertinent information required by the permit shall be available for on-site inspection during normal business hours. The owner or operator of the property shall be afforded the opportunity to accompany a Department inspector. Split samples, receipts, and copies of photographs will be provided to the facility owner or operator if the owner or operator requests them at the time the samples(s) is (are) obtained or the photograph(s) is (are) taken as the case may be. A copy of the results of any analyses made of samples, monitoring, or testing shall be furnished promptly to the owner or operator.
- 4. Inspections shall be conducted pursuant to the appropriate provisions of the Arizona Revised Statutes.

#### E. Proper Operation

- 1. The permittee shall at all times operate the facility so as to ensure the greatest degree of discharge reduction achievable through application of the best available demonstrated control technology, processes, operation methods or other alternatives, including, where practicable, no discharge of pollutants as determined in the application process.
- 2. The permittee shall operate the facility to ensure that pollutants discharged will in no event cause or contribute to a violation of aquifer water quality standards at the applicable point of compliance for the facility, or that no pollutants discharged will further degrade, at the applicable point of compliance, the quality of any aquifer, that already violates the aquifer quality standard for that pollutant.

#### F. Technical and Financial Capability

- 1. The permittee shall maintain the technical and financial capability necessary to fully carry out the terms of this permit.
- 2. Any bond, insurance policy or trust fund provided as a demonstration of financial capability in the permit application (R18-9-108.8.c.iii.) shall be in effect prior to any activity authorized by this permit and remain in effect for the duration of the permit.

#### G. Other Rules and Laws

The issuance of this permit does not waive any federal, state, county or local government rules, regulations or permits applicable to this facility.

#### H. Permit Actions

- 1. This permit may be modified, transferred, renewed or revoked under the rules of the Department. The filing of a request by the permittee for a permit action does not stay any existing permit condition.
- 2. The Director shall issue a public notice of all proposed permit actions pursuant to R18-9-124.

#### 3. Permit Modification

- a. Request for modification of a permit shall be made in writing by the permittee, the Department, or any affected person, and shall identify the specific item(s) to be considered for modification and the facts and reasons which justify the request.
- b. The permittee may be required to submit additional information pursuant to A.A.C. R18-9-108, including an updated permit application.
- The Director may modify an individual Aquifer Protection Permit if the Director determines any one or more of the following:
  - (1) That material and substantial alterations or additions to a permitted facility justify a change in permit conditions;
  - (2) that the discharge from the facility violates or could reasonably be expected to violate any Aquifer Water Quality Standard;
  - that rule or statutory changes have occurred, such as to require a change in the permit; and/or
  - (4) that there has been a change of an applicable point of compliance.
- d. With written concurrence of the permittee, the Department may make minor modifications to a permit for any of the following reasons without giving public notice or conducting a public hearing:
  - (1) To correct typographical errors;

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 26 of 29

- (2) increase the frequency of monitoring or reporting;
- (3) change an interim compliance date in a compliance schedule if the permittee can show just cause and that the new date does not interfere with the attainment of a final compliance date requirement;
- (4) change construction requirements, if the alteration complies with the requirements of these rules and provides equal or better performance; or
- (5) replace monitoring equipment, including wells, if such replacement results in equal or greater monitoring effectiveness.

#### 4. Permit Transfer

- a. The Director may transfer an individual Aquifer Protection Permit if the Director determines that the proposed transferee will comply with A.R.S. 49-241 through 49-251 and A.A.C. Chapter 9, Article 1, regardless of whether the permittee has sold or otherwise disposed of the facility, until the Director transfers the permit.
- b. The proposed transfer or and the transferee shall notify the Department within ten days after any change in the owner or operator of the facility. The notice shall include the name and signature of the transferor owner or operator, the name and signature of the transferee owner or operator; and the name and location of the facility.
- c. Information required in R18-9-108.A.1, 2, 3 and 6; B.7, 8, and 9; and D. shall be submitted about the transfere e prior to transfer of the permit.

#### 5. Permit Revocation and Suspension

The Director may suspend or revoke this permit for any of the following reasons:

- a. Noncompliance by the permittee with any applicable provision of Title 49, Chapter 2, Article 3 or the Arizona Revised Statutes, A.A.C. Title 18, Chapter 9, Article 1 or permit conditions;
- b. the permittee's misrepresentation or omission of any fact, information or data related to the permit application or permit;

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 27 of 29

- c. the Director determines that the permitted activity is causing or may cause a violation of any Aquifer Water Quality Standard; or
- d. a permitted discharge has the potential to cause or will cause imminent and substantial endangerment to public health or the environment.

#### I. Confidentiality of Information

- 1. Any information submitted to or obtained by the Department pursuant to A.R.S. 49-243 may be available to the public unless it is designated confidential. Information or a particular part of the information shall be considered confidential on either:
  - a. A showing, satisfactory to the Director, by any person that the information, or a particular part of the information, if made public, would divulge the trade secrets of the person; or
  - b. a determination by the attorney general that disclosure of the information or a particular part of the information would be detrimental to an ongoing criminal investigation or to an ongoing or contemplated civil enforcement action under A.R.S. Title 49, Chapter 2 in Superior Court.

#### 2. Criteria for Determining Confidentiality

- a. A confidentiality claim has been made at the time the information was submitted or obtained;
- b. the facility owner or operator has shown that reasonable measures have been taken to protect the confidentiality of the information and intends to continue to take such measures;
- c. the information is not, and has not been, reasonably obtainable without the facility owner or operator's consent by persons other than governmental bodies by use of legitimate means, other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding;
- d. no statute or rule specifically requires disclosure of the information; and
- e. the facility owner or operator has shown that disclosure of the information is likely to cause harm to its competitive position.

#### AQUIFER PROTECTION PERMIT PERMIT NUMBER P-102959 Page 28 of 29

- 3. Financial information required in the permit or permit application will be held confidential. Notwithstanding, the Director may disclose any records, reports or information obtained from any person in regard to this permit, including records, reports or information obtained by the Director or Department employees, to:
  - a. Other state employees concerned with administering A.R.S.
    Title 49, Chapter 2, or if the records, reports or information
    are relevant to any administrative or judicial proceeding
    under that chapter; and/or
  - b. employees of the United States Environmental Protection Agency, if such information is necessary or required to administer and implement or comply with the Clean Water Act, and Safe Drinking Water Act, CERCLA or provisions and regulations relating to those acts.
- 4. Claims of confidentiality for the following information shall be denied:
  - a. The name and address of any permit applicant or permittee;
  - b. the chemical constituents, concentrations and amounts of any pollutant discharge; or
  - c. the existence or level of a concentration of a pollutant in drinking water or in the environment.

#### J. Violations; Enforcement

Any person who owns or operates a facility contrary to the provisions of A.R.S. Title 49, Chapter 2, who violates the conditions specified in the A.A.C. Title 18, Chapter 9, Article 1, or this permit, is subject to the enforcement actions prescribed in A.R.S. Title 49, Chapter 2, Article 4 or the Arizona Revised Statutes.

#### PART VII. AQUIFER WATER QUALITY STANDARDS

#### A. General Standards Applicable to all Aquifers

- 1. A discharge shall not cause the concentration of a pollutant in an aquifer to exceed at an applicable point of compliance any one of the maximum concentrations prescribed in A.A.C. R18-11-406, unless a higher Aquifer Quality Limit has been established for this permit.
- 2. A discharge shall not cause a pollutant to be present in an aquifer classified for drinking water protected use in a concentration which endangers human health.
- 3. A discharge shall not cause a violation of a surface water quality standard established for a navigable water of the State.
- 4. A discharge shall not cause a pollutant to be present in an aquifer which impairs existing or reasonably foreseeable uses of water in an aquifer.



# ARIZONA DEPARTMENT **ENVIRONMENTAL QUALITY**



1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 · www.azdeq.gov

January 18, 2007

Mr. Dick Lockwood Baca Float Water Company P.O. Box 1536 Tubac, AZ 85646

Dear Mr. Lockwood:

Enclosed is a copy of the signed Aquifer Protection Permit Other Amendment, and the Executive Summary for the above referenced facility. The APP conditions shall apply from December 15, 2006, which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility (operational, closure, and post-closure periods).

Thank you for your cooperation in protecting the water quality of the State of Arizona. If you have any questions about the permit or need further assistance, please contact me at (800) 234-5677 ext.771-4683 or (602) 771-4683.

Sincerely,

Asif Majeed, Manage APP and Reuse Unit

Groundwater Section, Water Quality Division

Enclosures (2): Permit & Executive Summary

Cynthia Campbell, Water Quality Compliance Section cc:

Matthew Hodge, Mgr., Water Quality Data Unit, ADEQ

Robert Casey, Manager, Water Quality Enforcement Unit, ADEO

John Gibbons, Manager, Field Services Unit

Lynne Dekarske, Administrative Assistant III, Groundwater Section, ADEO

Marcy Mullins, Wastewater, and APP Unit (letter only)

Martin McCarthy, P.E., SRO, Environmental Compliance Regional Manager

Glen Vortherm, Project Engineer

Marcia Colquitt, Manager, Water Quality Compliance Assurance Unit

WWRR07:0041



### Fact Sheet

Aquifer Protection Permit 102959
Place ID #00265, LTF # 36054
SIGNIFICANT AMENDMENT
Baca Float Water Company Wastewater
Treatment Plant

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to the aquifer protection permit for the subject facility that covers the life of the facility, including operational, closure, and post closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

#### I. FACILITY INFORMATION

#### Name and Location

Permittee's Name:	Baca Float Water Company	
Mailing Address:	P.O. Box 1536	
	Tubac, Arizona 85646	
Facility Name and Location:	Baca Float Water Company Wastewater Treatment	
	Plant, located approximately ½ mile SE of Tubac	
	Arizona.	

#### **Regulatory Status**

An Aquifer Protection Permit (APP) was issued on August June 7, 1996. An application for this significant amendment was received on July 8, 2005.

The facility was issued a notice of violation (NOV) on November 22, 2004. The NOV was issued as the facility had not installed a monitor well, sampling ports were not provided, facility maintenance inspection was not performed and a contingency plan document was not available at the site. All issues except the monitor well issues have been resolved. This amendment requires the change in disposal method from land application to reuse at consumptive rates. Therefore under this amendment no monitor well is required, and this should resolve the remaining NOV issue concerning the monitor well installation

#### **Facility Description**

The permittee is authorized to operate a 0.1 million gallons per day (MGD) wastewater treatment plant (WWTP). The wastewater from septic tanks located at the Barrio de Tubac residential development and the golf course building, flows to the pretreatment tank located at the head of the WWTP. From the pretreatment tank, the effluent goes through a flow splitter, and then through two parallel trains of constructed subsurface flow wetlands. Each wetland train consists of two wetlands cells connected in series. Effluent from each wetland cell flows to a dosing tank and then to two sand filters. Effluent from the filters is chlorinated to meet Class A reclaimed water standards, enters the pump station # 1, which acts a temporary storage tank and also provides contact time for chlorination. From Pump station # 1 the effluent may be pumped back to the flow splitter located at the head of the WWTP or to a Habitat Pond. Effluent from the Habitat Pond flows to a storage pond. Effluent from the storage pond is pumped to an adjacent reuse site, consisting of turf, cottonwood and pine trees. The reuse site is also owned by the permittee and will be permitted under a reclaimed water permit. The WWTP treatment plant design was approved by ADEO on March 26, 1997.

The discharge from the facility may not exceed 15,000 gpd in phase I (Table IA). The facility may increase the discharge to 25,000 gpd (phase II), as stated in Section 3.0 of the Compliance schedule, item # 3, upon approval by ADEQ. Further increases in flow up to 100,000 gpd, which is the design capacity of the WWTP can be approved under an "other" amendment as stated in Section 3.0 of the Compliance schedule, item # 3.

The purpose of this amendment is to change the method of disposal from land application to reuse, and consequently delete the groundwater monitoring, as by reusing the effluent at consumptive rates, the effluent is not expected to reach groundwater. Further, in order to meet the standards for disinfection required for Class A reclaimed water, chlorination of the effluent will be required under this amendment.

The facility is located over groundwater in the Santa Cruz Active Management Area. The depth to groundwater is approximately 16 feet below land surface (bls) and the flow of groundwater is generally to the east towards the Santa Cruz River. The nearest point of use in the aquifer is an irrigation well located approximately ½ mile south of the facility and two production wells located approximately ½ mile southwest of the facility.

#### **Amendment Description**

Listed below are the changes to the permit as a result of this amendment:

1. Section 2.1. Facility Description – Changed the facility description to recognize the use of septic tanks, located at the residences, as primary treatment. Added

chlorination disinfection in order to meet the standards for reuse Class A reclaimed water.

- 2. Section 2.4. Points of Compliance (POC). Changed POC locations. Deleted the two POC locations for groundwater wells. Added three theoretical POC locations downgradient of the wetlands and the storage pond.
- 3. Section 2.2.5. Effluent classified for A reclaimed water.
- 4. Section 2.5.3, Groundwater Monitoring. Deleted groundwater monitoring, and requirement for ambient groundwater monitoring.
- 5. Section 3.0, Compliance Schedule. Added a procedure in the compliance schedule to allow the facility to increase the flow up to 0.1 MGD in phases.
- 6. Section 4.0., Monitoring Tables. Added additional monitoring constituents in metals suite and added a VOC monitoring suite. Nitrogen monitoring increased from quarterly to monthly. Total nitrogen discharge limit set to reserved, till the facility collects data to determine the de-nitrification capability of the wetlands. Deleted groundwater monitoring
- 7. Other changes include change in permit language to conform to the latest boilerplate language.

#### II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY

The facility treats the influent wastewater in wetland cells, providing some nitrogen removal. However as all wetland cells and storage ponds are lined with a 40 mil polypropylene geomembrane liner, effluent is not expected to reach the aquifer. The effluent is filtered, and chlorinated to meet Class A reclaimed water standards.

#### III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

The permittee is required to show that pollutants discharged will not cause or contribute to a violation of aquifer water quality standards at the POC. The location of the POCs which show compliance with aquifer water quality standards is determined by an analysis of the pollutant management area (PMA), the discharge impact area (DIA), and locations and uses of groundwater wells in the area. The POC locations are selected to protect off-site uses of groundwater, to verify BADCT performance, and to allow early detection of potential impact from the WWTP discharges.

The pollutant management area (PMA) as described in Arizona revised Statutes (ARS) §49-244 as the limit projected in the horizontal plane of the area on which pollutants are or will be placed. The PMA includes horizontal space taken up by any liner, dike or other barrier designed to contain pollutants in the facility. If the facility

contains more than one discharging activity, the PMA is described by an imaginary line circumscribing the several discharging activities. The PMA for this facility is defined by a line circumscribing the four wetland cells, Habitat pond, and the Storage pond.

The discharge impact area (DIA) is defined by ARS §49-201.13. The DIA means the potential aerial extent of pollutant migration, as projected on the land surface, as the result of a discharge from a facility. The DIA is similar is shape and size to the PMA because all discharging facilities are lined and no discharge is expected.

#### Point(s) of Compliance (P.O.C.)

#### 2.4 Points of Compliance (POCs) [A.R.S. § 49-244]

The Points of Compliance are established by the following designated locations:

POC#	POC Locations	Latitude	Longitude
1	Northeast corner of the WWTP site	31°36'30" N	111°02'29" W
2	East corner of the WWTP site	31°36'27" N	112°02'29" W
3.	Southeast corner of the WWTP site	31°36'22" N	112°02'31" W

Groundwater monitoring is not required at the points of compliance, except as a contingency action.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POC or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

#### Monitoring and Reporting Requirements

The following parameters will be monitored:

Parameter	Effluent	Reclaimed Water
Flow	daily	NA
bacteria: E-coli	Daily	Daily
nutrients: nitrate, nitrite, TKN	quarterly	NA
depth to groundwater	N/A	N/A
inorganic chemicals: metals, cyanide, fluoride as listed in AAC R18-9-11-406.B	Quarterly	NA
Volatile Organic Compounds as listed in AAC R18-9-11-406.B	Semi- annually	N/A

Parameter	Effluent	Reclaimed Water
Turbidity	N/A	Continuous
Viruses	N/A	Monthly/Suspended

Discharge limits (DLs) are set equivalent to the applicable AWQS except for nitrogen; Alert Levels (ALs) are set at 80% of the discharge limits. Groundwater monitoring is not required at the POCs.

#### IV. STORM WATER AND SURFACE WATER CONSIDERATIONS

The facility is located in a 100-year floodplain. The 100-year flood plain elevation at the location of the facility is 3201 +/-. An earthen berm with an elevation of 3204 +/- has been constructed around the facility to protect it from the 100-year flood. This same berm protects the facility from run-off during any storm events.

The nearest surface water body is the Santa Cruz River located approximately ¼ mile to the east of the facility and Tubac Creek located approximately ½ mile to the north.

#### V. COMPLIANCE SCHEDULE

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Enforcement Unit.

Compliance Item	Schedule
Total Nitrogen data	Begin sampling once there is flow from the wetlands.
	Notify ADEQ within 15 days of flow leaving wetlands
	that sampling has commenced.
Total Nitrogen data	Sample monthly for 18 months. Submit data within 30
	days of collecting the last sample to ADEQ, along with a
	request to set the Discharge and Alert Limit in the permit,
	based on the results of monitoring. This must be
	submitted along with a request for an "other" amendment.
When the facility has planted	The facility may increase the flow from 15,000 gallons
additional 7.4 acres of turf, submit a	per day (gpd) (phase I) to 25,000 gpd, (phase II) and
letter from a Professional Engineer	monitor as per Table 1B, after receiving ADEQ approval
verifying this along with an updated	to do so. The facility may discontinue monitoring as per
water balance. ADEQ will review the	Table IA. Flows beyond 25,000 gpd may only be
information, and if approved ADEQ	increased upon submitting additional reuse information,
will send a letter of approval to	and documention regarding adequate storage under an
increase flows to 25,000 gpd.	"other amendment.

### VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

### **Technical Capability**

Baca Float Company has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

The WWTP was designed by the consulting firm of Southwest Westland Group, dated December 15, 1994, and signed and sealed by Thomas Andrew, a registered engineer in the State of Arizona.

ADEQ requires that appropriate documents be sealed by an Arizona registered geologist or professional engineer. This requirement is a part of an on-going demonstration of technical capability. The permittee is expected to maintain technical capability throughout the life of the facility.

## Financial Capability

Baca Float Company has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee is expected to maintain financial capability throughout the life of the facility.

### **Zoning Requirements**

Baca Float Company WWTP has been properly zoned for the permitted use and the permittee has complied with all Santa Cruz County zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(A)(2)(c).

#### VII. ADMINISTRATIVE INFORMATION

#### **Public Notice (A.A.C. R18-9-108(A))**

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

### Public Comment Period (A.A.C. R18-9-109(A))

The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity

and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

# Public Hearing (A.A.C R18-9-109(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

#### VIII. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Wastewater, Recharge & Reuse Unit
Attn: Asif Majeed
1110 W. Washington St., Mail Code 5415B-3

Phoenix, Arizona 85007 Phone: (602) 771-4683

### STATE OF ARIZONA AQUIFER PROTECTION PERMIT NO. P-102959 PLACE ID # 265, LTF # 36054 SIGNIFICANT AMENDMENT

#### 1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Baca Float Water Company is hereby authorized to operate the Baca Float Wastewater Treatment Plant, located approximately ½ mile southeast of Tubac, Arizona, in Santa Cruz County, over groundwater of the Santa Cruz Active Management Area, in Township 21 S, Range 13 E, Section 18, of the Gila and Salt River Baseline and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

- 1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
- 2. such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

#### 1.1 PERMITTEE INFORMATION

Facility Name:

Baca Float Wastewater Treatment Plant

Facility Address:

Two Tubac Road, 1/2 mile southeast of Tubac

Santa Cruz County, Arizona

Permittee:

Baca Float Company

Permittee Address:

P.O. Box 1536

Tubac, Arizona 85646

**Facility Contact:** 

Dick Lockwood, Facility Manager

**Emergency Phone No.:** 

520-391-7188

Latitude/Longitude:

31E36' 30" N/ 111E02' 30" W

Legal Description:

21 S, Range 13 E, Section 18, SW\*, SW\*, SE\* of the Gila and Salt River Baseline

and Meridian.

### 1.2 AUTHORIZING SIGNATURE

Joan Card, Director Water Quality Division

Arizona Department of Environmental Quality

Signed this Stay of December, 2006

#### 2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

### 2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The permittee is authorized to operate a 0.1 million gallons per day (MGD) wastewater treatment plant (WWTP). The wastewater from septic tanks located at the Barrio de Tubac residential development and the golf course building, flows to the pretreatment tank located at the head of the WWTP. From the pretreatment tank, the effluent goes through a flow splitter, and then through two parallel trains of constructed subsurface flow wetlands. Each wetland train consists of two wetlands cells connected in series. Effluent from each wetland cell flows to a dosing tank and then to two sand filters. Effluent from the filters is chlorinated to meet Class A reclaimed water standards, enters the pump station # 1, which acts a temporary storage tank and also provides contact time for chlorination. From Pump station # 1 the effluent may be pumped back to the flow splitter located at the head of the WWTP or to a Habitat Pond. Effluent from the Habitat Pond flows to a storage pond. Effluent from the storage pond is pumped to an adjacent reuse site, consisting of turf, cottonwood and pine trees. The reuse site is also owned by the permittee and will be permitted under a reclaimed water permit. The WWTP treatment plant design was approved by ADEQ on March 26, 1997.

The discharge from the facility may not exceed 15,000 gpd in phase I (Table IA). The facility may increase the discharge to 25,000 gpd (phase II), as stated in Section 3.0 of the Compliance schedule, item # 3, upon approval by ADEQ. Further increases in flow up to 100,000 gpd, which is the design capacity of the WWTP can be approved under an "other" amendment as stated in Section 3.0 of the Compliance schedule, item # 3.

The purpose of this amendment is to change the method of disposal from land application to reuse, and consequently delete the groundwater monitoring, as by reusing the effluent at consumptive rates, the effluent is not expected to reach groundwater. Further, in order to meet the standards for disinfection required for Class A reclaimed water, chlorination of the effluent will be required under this amendment.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Wetlands	31° 36' 30" N	111° 02' 30" W
Habitat Pond	31° 36' 30" N	111° 02' 39" W
Storage Pond	31° 36' 23" N	111° 02' 32" W

#### Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(E) and is payable to ADEO each year. The design flow is 0.1 million gallons per day (mgd).

# Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203 at the time of the issuance of the permit on June 7, 1996. The permittee shall maintain financial capability throughout the life of the facility.

# 2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The Water Reclamation Facility shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for wastewater treatments plants, prior to the January 2001 APP rules. The storage pond, the Habitat Pond and the wetland cells are all lined with a 40 mil polypropylene liner. The wetlands are expected to denitrify to a certain extent, but may not meet the AWQS standard of 10.0 mg/l.

The facility shall meet the requirements for the pretreatment by conducting monitoring as per R18-9-B204(A)(6)(b)(iii).

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

#### 2.2.1 Engineering Design

The WWTP was designed by the consulting firm of Southwest Westland Group, dated December 15, 1994, and signed and sealed by Thomas Andrew, a registered engineer in the State of Arizona.

#### 2.2.2 Site-specific Characteristics

Not Applicable.

### 2.2.3 Pre-Operational Requirements

Not Required. The WWTP is already in operation.

#### 2.2.4 Operational Requirements

- 1. The permittee shall maintain a copy of the up-to-date O & M manual at the WWTP site at all times and shall be available upon request during inspections by ADEQ personnel.
- 2. The pollution control structures shall be inspected for the items listed in Section 4.0, Table III FACILITY INSPECTION (OPERATIONAL MONITORING).
- 3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance.

# 2.2.5 Wastewater Treatment Plant Classification A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The WWTP will produce reclaimed water meeting Class A Reclaimed Water Quality Standards and can be used for any allowable use in that class under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

#### 2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

- 1. The permittee is authorized to operate the WWTP with a maximum average monthly flow of 0.1 MGD. However the discharge capacity will be limited to 0.015 MGDin phase I and 0.025 MGD in phase II, based on the available reuse area and storage capacity.
- 2. The permittee shall notify all users that the materials authorized to be disposed of through the WWTP are typical household sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
- 3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of BADCT pollutant control

technologies including liner failure<sup>1</sup>, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.

4. Specific discharge limitations are listed in Section 4.0, Tables IA, IB and IC.

#### 2.4 Points of Compliance (POCs) [A.R.S. § 49-244]

The Points of Compliance are established by the following designated locations:

POC#	POC Locations	Latitude	Longitude
1	Northeast corner of the WWTP site	31°36'30" N	111°02'29" W
2	East corner of the WWTP site	31°36'27" N	112°02'29" W
3	Southeast corner of the WWTP site	31°36'22" N	112°02'31" W

Groundwater monitoring is not required at the points of compliance, except as a contingency action.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POC or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

# 2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

#### 2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, Table IA, IB and IC. A representative sample of the wastewater shall be collected at the point of discharge from effluent pump station # 1.

#### 2.5.1.1 Reclaimed Water Monitoring

The permittee shall monitor the parameters listed under Table IC in addition to the routine discharge monitoring parameters listed in Tables IA and IB.

#### 2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.0, Table III.

<sup>&</sup>lt;sup>1</sup>Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

- a. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
- b. The permittee shall submit data required in Section 4.0, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

#### 2.5.3 Groundwater Monitoring and Sampling Protocols

Routine groundwater monitoring is not required under the terms of this permit.

### 2.5.4 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

#### 2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona State certified laboratories can be obtained at the address below:

Arizona Department of Health Services Office of Laboratory Licensure and Certification 250 North 17<sup>th</sup> Ave. Phoenix, AZ 85007 Phone: (602) 364-0720

#### 2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new points.

# 2.6 Contingency Plan Requirements [A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

#### 2.6.1 General Contingency Plan Requirements

At least one copy of the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

An alert level (AL) exceedance, violation of a discharge limit (DL), aquifer quality limit (AQL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL, or any other permit condition.

#### 2.6.2 Exceeding of Alert Levels/Performance Levels

# 2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions

- 1. If the operational PL set in Section 4.0, Table III has been exceeded (permit condition violated) the permittee shall:
  - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of an exceedance of any permit condition in Table III.
  - b. Submit a written report within thirty (30) days after becoming aware of an exceedance of a permit condition. The report shall document all of the following:
    - (1) A description of the exceedance and its cause;
    - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
    - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
    - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
    - (5) any malfunction or failure of pollution control devices or other equipment or process.
- 2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

### 2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE I has been exceeded, the permittee shall immediately investigate to determine the cause of the exceedance. The investigation shall include the following:

- Inspection, testing, and assessment of the current condition of all treatment or
  pollutant discharge control systems that may have contributed to the
  exceedance.
- b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
- c. Pretreatment source control for industrial pollutants.
- 2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
- 3. Within thirty (30) days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
- 4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

#### 2.6.2.2.1. Exceeding Permit Flow Limit

- 1. If the AL for average monthly flow in Section 4.0, Table IA or IB is exceeded, the permittee shall submit an application for an APP amendment to expand the WWTP or submit a report detailing the reasons that expansion is not necessary.
- 2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

#### 2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

#### 2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

# 2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

Not required at time of permit issuance.

# 2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of permit issuance.

# 2.6.3 Discharge Limit (DL) Violations

1. If a DL set in Section 4.0, Tables IA, IB and IC has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:

- a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
- b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
- c. Sampling of individual waste streams composing the wastewater for the parameters in violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

- 2. The permittee shall comply with the freeboard requirements as specified in Section 4.0, Table III (Facility Inspections) to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
- 3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

# 2.6.4 Aquifer Quality Limit (AQL) Violation

Not Applicable.

# 2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

#### 2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

#### 2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Southern Regional Office at (602) 628-6755 within 24 hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL exceedance, or; b) could pose an endangerment to public health or the environment.

#### 2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be

removed and the site cleaned up as soon as possible. The permittee shall notify the Southern Regional Office at (602) 628-6755, within 24 hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance, or; b) could pose an endangerment to public health or the environment.

#### 2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the Southern Regional Office, 400 W. Congress, Suite 455, Tucson, Arizona 85701, within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

#### 2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

- 1. Control of the source of an unauthorized discharge;
- 2. Soil cleanup;
- 3. Cleanup of affected surface waters;
- 4. Cleanup of affected parts of the aquifer;
- 5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

# 2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

# 2.7.1 Self Monitoring Report Forms (SMRF)

- 1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
- 2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
- 3. The tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and analytical methods shall be recorded on the SMRFs. The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds if the data indicate that water quality standards are being achieved.

4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

#### 2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

- 1. Name of inspector;
- 2. Date and shift inspection was conducted;
- 3. Condition of applicable facility components;
- 4. Any damage or malfunction, and the date and time any repairs were performed;
- 5. Documentation of sampling date and time;
- 6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with R18-9-A206(B)(2).

### 2.7.3 Permit Violation and Alert Level Status Reporting

- 1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.
- 2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
  - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
  - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
  - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
  - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard;
  - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
  - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

#### 2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, Table III and submit to the

ADEQ, Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Table IA and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

- 1. any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;
- 2. any end user who has not waived interest in receiving this information.

# 2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality Water Quality Compliance Section, Data Unit Mail Code: 5415B-1 1110 W. Washington Street Phoenix, Arizona 85007 Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address, and the applicable regional office:

Arizona Department of Environmental Quality Water Quality Compliance Section, Enforcement Unit Mail Code: 5415B-1 1110 W. Washington Street Phoenix, Arizona 85007 Phone (602) 771-4614

Arizona Department of Environmental Quality Southern Regional Office 400 W. Congress, Suite 455 Tucson, Arizona 85701 Phone: (520) 628-6755 Toll free: (888) 271-9302

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality Groundwater Section Mail Code: 5415B-3 1110 W. Washington Street Phoenix, Arizona 85007 Phone (602) 771-4428

#### 2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

### 2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

# 2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section and the Southern Regional Office before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

- 1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility.
- 2. Correct the problem that caused the temporary cessation of the facility.
- 3. Notify ADEQ with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three (3) years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

### 2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section and the Southern Regional Office of the intent to cease operation without resuming activity for which the facility was designed or operated.

#### 2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

#### 2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post Closure stated in this permit:

- 1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
- 2. Further action is necessary to keep the facility in compliance with Aquifer Water Quality Standards at the applicable point of compliance;
- 3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
- 4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
- 5. Further action is necessary to meet property use restrictions.

# 2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49-201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

### 2.10.1 Post-Closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

#### 2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

# 3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Enforcement Unit.

Compliance Item	Schedule
Total Nitrogen data	Begin sampling once there is flow from the wetlands. Notify
	ADEQ within 15 days of flow leaving wetlands that
	sampling has commenced.
Total Nitrogen data	Sample monthly for 18 months. Submit data within 30 days
	of collecting the last sample to ADEQ, along with a request
	to set the Discharge and Alert Limit in the permit, based on
	the results of monitoring. This must be submitted along with
	a request for an "other" amendment.
When the facility has planted additional 7.4 acres	The facility may increase the flow from 15,000 gallons per
of turf, submit a letter from a Professional	day (gpd) (phase I) to 25,000 gpd, (phase II) and monitor as
Engineer verifying this along with an updated	per Table IB, after receiving ADEQ approval to do so. The
water balance. ADEQ will review the	facility may discontinue monitoring as per Table IA. Flows
information, and if approved ADEQ will send a	beyond 25,000 gpd may only be increased upon submitting
letter of approval to increase flows to 25,000 gpd.	additional reuse information, and documenting regarding
, 21	adequate storage under an "other" amendment.

# TABLE IA ROUTINE DISCHARGE MONITORING PHASE I

		I III IOL			
Sampling Point Number	Sampling	Point Identific	ation	Latitude	Longitude
1	Discharge from	Effluent Pump	Station # 1	31° 36' 24" N	111° 02' 22" W
Parameter	$AL^2$	DL <sup>3</sup> Units		Sampling Frequency	Reporting Frequency
Total Flow: Daily <sup>4</sup>	Not Established <sup>5</sup>	Not Established	MGD <sup>6</sup>	Daily <sup>7</sup>	Quarterly
Total Flow: Average Monthly	0.014	0.015	MGD	Monthly <sup>8</sup>	Quarterly
E-coli: Single sample maximum	Not established	15	CFU or MPN <sup>9</sup>	Daily <sup>10</sup>	Quarterly
E-coli: four (4) of seven (7) samples in a week <sup>11</sup>	Not established	Non-detect <sup>12</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>13</sup> : 5- sampling rolling geometric mean.	Reserved	Reserved <sup>14</sup>	mg/l	Monthly <sup>15</sup>	Quarterly

 $<sup>^{2}</sup>AL = Alert Level$ 

<sup>&</sup>lt;sup>3</sup>DL = Discharge Limit

<sup>&</sup>lt;sup>4</sup>Total flow is measured in million gallons per day (MGD)

<sup>&</sup>lt;sup>5</sup>Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>&</sup>lt;sup>6</sup>MGD = Million Gallons per Day

<sup>&</sup>lt;sup>7</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>&</sup>lt;sup>8</sup>Monthly = Calculated value = Average of daily flows in a month.

<sup>&</sup>lt;sup>9</sup>CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect. <sup>10</sup>Daily means at least four (4) samples per week.

<sup>&</sup>lt;sup>11</sup>Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>&</sup>lt;sup>12</sup>If at least four (4) of the daily samples are non-detect CFU or MPN report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily samples are greater than non-detect CFU or MPN report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

<sup>&</sup>lt;sup>13</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

<sup>&</sup>lt;sup>14</sup>Reserved means no limits have been established at this time. Limits will be established, after collecting 18 months of nitrogen data, from the date there is adequate flow to leave the wetlands.

<sup>&</sup>lt;sup>15</sup>A 5-Month Geometric Mean of the results of the 5 most recent samples

# TABLE IA ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency				
Metals (Total):									
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly				
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly				
Barium	1.60	2.00	mg/l	Quarterly	Quarterly				
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly				
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly				
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly				
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly				
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly				
Lead	0.04	0.05	mg/l	Quarterly	Quarterly				
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly				
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly				
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly				
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly				

# TABLE 1A ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency			
Volatile Organic Compounds (VOCs):								
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually			
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually			
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually			
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually			
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually			
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually			
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually			
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually			
Trihalomethanes (total) 16	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually			
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually			
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually			
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually			

 $<sup>^{16}</sup> Total\ Trihalomethanes\ are\ comprised\ of\ Bromoform,\ Bromodichloromethane,\ Chloroform,\ and\ Dibromochloromethane.$ 

# TABLE IB ROUTINE DISCHARGE MONITORING PHASE II

Sampling Point Number	Sampling	g Point Identific	ation	Latitude	Longitude
1	Discharge from	Effluent Pump	Station # 1	31° 36' 24" N	111° 02' 22" W
Parameter	$\mathbf{AL}^{17}$	AL <sup>17</sup> DL <sup>18</sup> Units		Sampling Frequency	Reporting Frequency
Total Flow: Daily <sup>19</sup>	Not Established <sup>20</sup>	Not Established	MGD <sup>21</sup>	Daily <sup>22</sup>	Quarterly
Total Flow: Average Monthly	0.024	0.025	MGD	Monthly <sup>23</sup>	Quarterly
E-coli: Single sample maximum	Not established	15	CFU or MPN <sup>24</sup>	Daily <sup>25</sup>	Quarterly
<i>E-coli</i> : four (4) of seven (7) samples in a week <sup>26</sup>	Not established	Non-detect <sup>27</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>28</sup> : 5- sampling rolling geometric mean.	Reserved	Reserved <sup>29</sup>	mg/l	Monthly <sup>30</sup>	Quarterly

 $<sup>^{17}</sup>AL = Alert Level$ 

<sup>&</sup>lt;sup>18</sup>DL = Discharge Limit

<sup>&</sup>lt;sup>19</sup>Total flow is measured in million gallons per day (MGD)

<sup>&</sup>lt;sup>20</sup>Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>&</sup>lt;sup>21</sup>MGD = Million Gallons per Day

<sup>&</sup>lt;sup>22</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>&</sup>lt;sup>23</sup>Monthly = Calculated value = Average of daily flows in a month.

<sup>&</sup>lt;sup>24</sup>CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect. <sup>25</sup>Daily means at least four (4) samples per week.

<sup>&</sup>lt;sup>26</sup>Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>&</sup>lt;sup>27</sup>If at least four (4) of the daily samples are non-detect CFU or MPN report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily samples are greater than non-detect CFU or MPN report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

 $<sup>^{28}</sup>$ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

Reserved means no limits have been established at this time. Limits will be established, after collecting 18 months of nitrogen data, from the date there is adequate flow to leave the wetlands.

<sup>&</sup>lt;sup>30</sup>A 5-Month Geometric Mean of the results of the 5 most recent samples

# TABLE IB ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency			
Metals (Total):								
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly			
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly			
Barium	1.60	2.00	mg/l	Quarterly	Quarterly			
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly			
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly			
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly			
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly			
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly			
Lead	0.04	0.05	mg/l	Quarterly	Quarterly			
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly			
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly			
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly			
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly			

TABLE 1B
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency			
Volatile Organic Compounds (VOCs):								
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually			
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually			
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually			
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually			
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually			
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually			
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually			
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually			
Trihalomethanes (total) 31	0.08	0.1	mg/l	Semi-Annually	Semi-Annually			
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually			
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually			
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually			
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually			
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually			

 $<sup>^{31}</sup>$ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

#### **TABLE IC**

#### RECLAIMED WATER MONITORING TABLE - CLASS A

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Discharge from Effluent Pump Station # 1	31° 36' 24" N	111° 02' 32" W

Parameter	DL	Units	Sampling Frequency	Reporting Frequency
E. coli <sup>32:</sup> Single-sample maximum	15	CFU or MPN <sup>33</sup>	Daily <sup>34</sup>	Quarterly
E. coli: Four (4) of last seven (7) samples	Non-detect <sup>35</sup>	CFU or MPN	Daily	Quarterly
Turbidity <sup>36</sup> : Single reading	5.0	NTU <sup>37</sup>	Everyday <sup>38</sup>	Quarterly
Turbidity: 24-hour average	2.0	NTU	Everyday	Quarterly
Enteric Virus <sup>39</sup> : Four (4) of last seven (7) samples	Non-detect	PFU <sup>40</sup>	Monthly / Suspended <sup>41</sup>	Quarterly

<sup>&</sup>lt;sup>32</sup> E. coli monitoring results that meet the specified discharge limits are considered to demonstrate compliance with A.A.C. R18-11-303.

<sup>&</sup>lt;sup>33</sup> CFU = Colony Forming Units per 100 ml: MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>&</sup>lt;sup>34</sup> For *E. coli*, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.

<sup>&</sup>lt;sup>35</sup> If at least four (4) of the last seven (7) samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples have detections of *E. coli*, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

<sup>&</sup>lt;sup>36</sup> Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to backflushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

<sup>&</sup>lt;sup>37</sup> Nephelometric Turbidity Units

<sup>&</sup>lt;sup>38</sup> For the single turbidity reading, "everyday" means the maximum reading during the 24-hour period.

<sup>&</sup>lt;sup>39</sup> Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

<sup>&</sup>lt;sup>40</sup> Plaque Forming Units per 40 Liters. A value of <1.1 PFU/40 L shall be considered to be non-detect.

<sup>&</sup>lt;sup>41</sup> Enteric virus sampling shall resume only if two (2) consecutive turbidity limits are exceeded. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF.

# TABLE II GROUNDWATER MONITORING

# NOT REQUIRED IN THIS PERMIT

# TABLE III FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Freeboard in Ponds	Minimum of three feet	Monthly
Treatment Plant Components	Good working condition	Monthly
Berm Integrity of Ponds	No visible structural damage, breach, or erosion of embankments	Monthly
Liner Integrity of Ponds	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Monthly

### 5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated: April 8, 2005

2. Contingency Plan, dated: April 8, 2005

3. Final Hydrologist Report dated: Not Required

4. Final Engineering Report dated: Not Required

5. Public Notice dated: August 18, 2006

6. Public Hearing, dated: Not applicable.

7. Responsiveness Summary, dated: Not applicable.

#### 6.0 NOTIFICATION PROVISIONS

#### 6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D).

#### 6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

#### 6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

# 6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an Aquifer Water Quality Standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

# 6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

# 6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

- 1. the filing of bankruptcy by the permittee;
- 2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

#### 6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

#### 6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

### 6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

# 6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

#### 7.0 ADDITIONAL PERMIT CONDITIONS

#### 7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

# 7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

#### 7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).